

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

G U Y A N A

**BASIC EDUCATION, ACCESS, MANAGEMENT SUPPORT (BEAMS)
PHASE I**

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DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

GUYANA

BASIC EDUCATION, ACCESS, MANAGEMENT SUPPORT (BEAMS) PHASE I

(GY-0063)

LOAN PROPOSAL

This document was prepared by the project team consisting of: Michelle Fryer, Project Team Leader; David Rogers (RE3/SO3); Carlos Antola (COF/CGY); Sharon Miller (COF/CJA); Diana González (Consultant); Valnora Leister (LEG); and Amparo Omaña (RE3/SO3) who was in charge of document production. The team also wishes to acknowledge the contribution of Gabriel Castillo (RE3/OD6).

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ABBREVIATIONS

BEAMS	Basic Education, Access, Management Support
CPCE	Cyril Potter College of Education
CXC	Caribbean Examinations Council
DFID	Department for International Development
E-HIPC	Enhanced Highly Indebted Poor Country Initiative
EMIS	Education Management Information System
EPA	Environmental Protection Agency
ESDP	Education Sector Development Plan
GEMP	Guyana Economic Management Program
GOG	Government of Guyana
GSS	General Secondary Schools
HIPC	Highly Indebted Poor Country Initiative
ICT	Information and Communication Technology
IMC	Inter Ministerial Commission
IMF	International Monetary Fund
IRI	Interactive Radio Instruction
MOE	Ministry of Education
MOF	Ministry of Finance
NCERD	National Centre for Educational Resources Development
NEC	National Education Commission
NDS	National Development Strategy
PEIP	Primary Education Improvement Project
PIU	Project Implementation Unit
PMC	Project Management Council
PMIS	Project Management Information System
PRSP	Poverty Reduction Strategy Paper
PSC	Public Service Commission
PTA	Parent Teacher Association
REDO	Regional Education Officer
RDC	Regional Democratic Councils
SIAC	School Improvement Action Committees
SIMAP	Social Impact Amelioration Program
SSEE	Secondary School Entrance Examination
TA	Technical Assistance
TCU	Technical Coordination Unit
TSC	Teaching Service Commission
TVET	Technical Vocational Education Training
UG	University of Guyana
UPS	Uninterrupted Power Supply
WB	World Bank



Inter-American Development Bank
Regional Operations Support Office
Operational Information Unit

Guyana

Tentative Lending Program

2002

Project Number	Project Name	IDB US\$ Millions	Status
GY0065	Unserved Areas Electrification Program	27.4	
GY0066	Information & Communications Technology	21.3	
GY0063	Basic Education, Access, & Mgmt Support	30.0	
GY0068	Basic Nutrition Program	5.0	
GY0011	Agricultural Support Services	10.0	
Total - A : 5 Projects		93.7	
GY0055	Georgetown Solid Waste Management	8.1	
GY0064	Technical Vocational Education and Train	20.0	
Total - B : 2 Projects		28.1	
TOTAL 2002 : 7 Projects		121.8	

2003

Project Number	Project Name	IDB US\$ Millions	Status
GY0053	Public Sector Modernization Program	35.0	
Total - A : 1 Projects		35.0	
TOTAL - 2003 : 1 Projects		35.0	
Total Private Sector 2002 - 2003		0.0	
Total Regular Program 2002 - 2003		156.8	

* Private Sector Project



GUYANA

IDB LOANS

APPROVED AS OF APRIL 30, 2002

	<i>US\$Thousand</i>	<i>Percent</i>
TOTAL APPROVED	749,998	
DISBURSED	555,919	74.1%
UNDISBURSED BALANCE	194,079	25.9%
CANCELLATIONS	38,210	5.1%
PRINCIPAL COLLECTED	208,759	27.8%
APPROVED BY FUND		
ORDINARY CAPITAL	103,637	13.8%
FUND FOR SPECIAL OPERATIONS	639,426	85.3%
OTHER FUNDS	6,934	0.9%
OUTSTANDING DEBT BALANCE	347,160	
ORDINARY CAPITAL	25,216	7.3%
FUND FOR SPECIAL OPERATIONS	321,945	92.7%
OTHER FUNDS	0	0.0%
APPROVED BY SECTOR		
AGRICULTURE AND FISHERY	242,845	32.4%
INDUSTRY, TOURISM, SCIENCE TECHNOLOGY	33,387	4.5%
ENERGY	76,884	10.3%
TRANSPORTATION AND COMMUNICATIONS	127,411	17.0%
EDUCATION	59,167	7.9%
HEALTH AND SANITATION	75,550	10.1%
ENVIRONMENT	900	0.1%
URBAN DEVELOPMENT	47,319	6.3%
SOCIAL INVESTMENT AND MICROENTERPRISE	49,437	6.6%
REFORM PUBLIC SECTOR MODERNIZATION	36,163	4.8%
EXPORT FINANCING	934	0.1%
PREINVESTMENT AND OTHER	0	0.0%

* Net of cancellations with monetary adjustments and export financing loan collections



INTER-AMERICAN DEVELOPMENT BANK
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GUYANA

STATUS OF LOANS IN EXECUTION AS OF APRIL 30, 2002

(Amounts in US\$ thousands)

APPROVAL PERIOD	NUMBER OF PROJECTS	AMOUNT APPROVED	AMOUNT DISBURSED	% DISBURSED
Before 1996	5	109,400	103,703	94.79%
1996 - 1997	2	58,000	19,487	33.60%
1998 - 1999	5	104,000	8,608	8.28%
2000 - 2001	3	53,900	46	0.08%
TOTAL	15	\$325,300	\$131,844	40.53%

* Net of Cancellations . Excluding export financing loans.

**BASIC EDUCATION, ACCESS, MANAGEMENT SUPPORT PROGRAM (BEAMS)
PHASE I**

(GY-0063)

EXECUTIVE SUMMARY

Borrower:	Cooperative Republic of Guyana (GOG)		
Executing agency:	Ministry of Education (MOE)		
Amount and source:		First Phase:	Second Phase:
	IDB: (FSO)	US\$ 30.0	US\$ 20.0
	Local:	US\$ 3.5	US\$ 2.5
	Total:	US\$ 33.5	US\$22.5
Financial terms and conditions:	Amortization Period:	40	years
	Grace Period:	10	years
	Execution Period	4	years
	Disbursement Period:	5	years
	Interest Rate:	1%	grace period
		2%	thereafter
	Supervision and Inspection:	1	%
	Credit Fee:	0.5	%
	Currency:	U.S. dollars	
Objectives:	The goal of the program is to contribute to sustainable socio-economic development and equitable poverty reduction. Its objectives include: (i) sustained, improved literacy and numeracy attainment through the primary cycle; and (ii) expanded secondary access in underserved areas and poverty zones.		
Description:	The program is divided into three articulated components: 1. The Improved School Performance Component (US\$9.70 million) will finance fundamental curricular and pedagogical reforms in literacy and numeracy from nursery to primary grade 4, including: (i) a results-oriented literacy program and print-rich environment in all schools; (ii) core numeracy instruction for all students in primary grades 1-3 via interactive radio instruction; (iii) community-based programs to raise attendance, enhance equity, and restore literacy and numeracy to acceptable levels in low-performing schools; (iv) introduction of modern technologies into teaching, learning, and school administration; (v) teacher upgrading and in-service training emphasizing new methodologies; alignment of in-service and pre-service training programs with MOE’s new literacy and numeracy program; (vi) a comprehensive system for student assessment, including replacement of the Secondary School Entrance Examination.		

2. The Organization and Human Resource Capacity Component (US\$3.47 million) will finance actions that improve the management capability of MOE to deliver quality educational services including: (i) strengthening core decision making through the establishment of an integrated education management information system (EMIS) that supports asset management, human resources, and sector performance; (ii) a robust management and professional development program, encompassing succession planning and formal and on-the-job training opportunities; (iii) institutional strengthening, through the review of national education system policies, a modern Education Act, implementation of institutional changes, and development of an integrated financial management system.
3. The Infrastructure Component (US\$15.0 million) will support universal secondary education by enlarging the stock of schools in communities where unmet need is highest, including: (i) five new and one replacement school; (ii) rehabilitation and/or extension of five existing schools; (iii) student dormitories and teacher accommodations in remote areas. Recurrent budgetary resources will be allocated on a progressive basis to address the financing gap in school maintenance.

**Bank's country
and sector
strategy:**

BEAMS is consistent with the Bank's country strategy which includes accelerated socio-economic development, poverty alleviation, and improved social service delivery. In education, the Bank's agenda consists of increased public, and policy measures that enhance MOE capacity to sustain quality improvement, while pushing for universal primary and secondary coverage.

**Environmental/
social review:**

BEAMS will finance small-scale projects, including new school construction and the rehabilitation of existing infrastructure. Potential hazards are considered minor and predictable. To mitigate this occasion, a limited environmental analysis was conducted during project preparation, and detailed environmental guidelines were prepared to inform execution of the infrastructure component. In accordance with the procedures of Guyana's Environmental Protection Agency, construction permits will be granted on the basis of environmental management plans. Mandatory application of standard measures in project engineering will be specified in bidding documents. No negative environment impacts are expected.

The social impact of the program will be significant, as BEAMS will promote the inclusion of groups across community, ethnic, racial, and socio-economic lines. MOE will address social, ethnic, and gender issues through a sustained social mobilization campaign, that ensures the active participation of all stakeholders in school improvement initiatives. Norms of indigenous populations will be respected in the development of content and in the

extension of services. A methodology to integrate community participation in the approval of construction sites and designs will be used in all instances. The transition plan for universal secondary education, will take into account poverty indicators as well as the ethnic and gender disparities among the population. Progress towards the achievement of equity objectives expressed in the evaluation framework will be closely monitored to assess impact.

Benefits:

BEAMS emphasis on social equity will benefit all segments of the school-age population, notably children from low-income families who are at the margin of both access and achievement. At the primary level, teachers and students will benefit from curricular and pedagogical reforms in literacy and numeracy. At the secondary level, the project will support the expansion of coverage to low-income groups with the greatest levels of unmet demand. Specific programs will target low-performing students from poverty zones and make provisions for the retention of trained teachers in underserved areas where the need for equity targeting is most acute. BEAMS will use innovative learning technologies to extend quality education to children in remote areas. The performance of at-risk children will be further supported by a package of instructional resources, technological innovations, and accelerated learning programs.

Risks:

Critical to strengthening the education sector is GOG's ability attract and *retain qualified teachers*. GOG has informed the Bank that it will address teacher remuneration within the context of a government-wide public-sector modernization strategy currently being designed with Bank support (ATN/SF-6867-GY). BEAMS will inform this process by monitoring of teacher supply/demand, by identifying viable compensation strategies, and by introducing a sustainable program of pecuniary incentives to attract and retain qualified teachers, including: (i) opportunities for unqualified teachers to participate in programs that upgrade their teaching qualifications and compensation; (ii) provision of residential accommodations to attract and retain qualified teachers in rural schools; (iii) establishment of a permanent system of teacher training and support at the cluster level; (iv) workplace improvements, including appropriate learning technologies and teaching resources in all primary schools; (v) incentive grants for school improvement. Through the collaborative bargaining process, MOE will commit to working with the union to introduce wage incentives within the existing structure of teacher remuneration that favor trained and qualified teachers and their placement in remote schools.

MOE *execution capacity* is limited by its complex organizational structure and by a shortfall of qualified staff at the managerial level. Competing demands placed on senior administrators could lead to

slippage in loan execution. To mitigate this risk, MOE assigned experienced staff from its Primary Education Improvement Project Implementation Unit to facilitate BEAMS start-up and execution. Five long-term international staff will also be assigned to MOE technical units responsible for implementing BEAMS, thus developing new technical expertise while preserving existing capacity in project administration. MOE will establish a system of succession planning, leadership development, and training for senior and middle managers. A robust EMIS will be put in place to generate data on performance outcomes and operational activities.

Whereas RDCs manage 75% of the education-sector recurrent budget, their role in the administration of the day-to-day operations of schools is not clearly defined in the current legislative framework. Inherent in any process to redefine roles and accountability, there is a **political risk** that the parties will not agree on the way forward. To mitigate this risk, GOG has agreed to form a high-level Task Force, composed of a broad cross-section of stakeholders and civil society, to review the organizational structure of the education sector, and make consensus recommendations for drafting a new *Education Act*. The Task Force will collaborate closely with the Office of the President and the Ministry of Local Government to ensure that the new legislation and its regulations meet the long-term goals of Guyana's National Development Strategy, and are acceptable to MOE, RDCs, and TSC.

Special contractual clauses:

Conditions prior to first disbursement:

1. Cabinet approval of the Education Sector Development Plan. (¶ 3.7)
2. Evidence that GOG has: (i) approved the structure of the PIU; and (ii) appointed the project manager and three key staff (Financial Manager, Civil Works Manager, Procurement Officer). (¶ 3.5)
3. Bank approval of the implementation and procedures manuals, and the definitive Phase I Action Plan. (¶ 3.10)
4. Evidence that MOE has initiated Central Tender Board approval of international technical contracts for the following long-term staff: (i) monitoring and evaluation specialist, (ii) assessment specialist, (iii) literacy specialist, (iv) teacher training specialist; (v) one education legislation specialist (short-term); (vi) an international firm to implement the innovative technologies sub-component. (¶ 3.11)
5. Listing of titles and titleholders for construction sites in Batch 1, certified by the Office of the Attorney General. (¶ 3.14)

Conditions prior to disbursements for the infrastructure component:

1. Architectural designs, engineering specifications, tender documents, and appropriate evidence of Government ownership and title of land for each school constructed, improved or extended with project resources. (¶ 3.14)
2. Evidence of achieving the agreed annual benchmarks for school maintenance and repair, in the GOG recurrent budget. (¶ 3.16)
3. Prior to starting activities for Batch 2 of schools, evidence that all schools constructed or improved under BEAMS meet current norms with regard to national averages for: (i) GSS teacher: student ratio, and (ii) GSS trained teacher: student ratio, as published in the most current Educational Digest. (¶ 3.15)

Monitoring and Evaluation:

1. The Bank and GOG will conduct two joint monitoring and evaluation reviews per year during the first two years of project implementation, and one review per year in subsequent years. The reviews will facilitate adjustments to the action plan, budget, and disbursement schedule for the following year that ensure the implementation of triggers and benchmark indicators expressed in Annexes II-1 and II-2. (¶ 3.27)
2. Bank consideration of loan financing for Phase II, will be contingent upon:
 - (i) the outcome of an external evaluation of Phase I performance and confirmation of simultaneous progress in all components. (¶ 2.4, 3.29, Annex II-2); and
 - (ii) Government's effort in putting in place sustainable programs to attract and retain teachers. (¶ 4.7)

Poverty-targeting and social equity classification:

This operation qualifies as a social equity-enhancing project, as described in the indicative targets mandated by the Bank's Eighth Replenishment (document AB-1704). Furthermore, this operation qualifies as a poverty targeted investment (PTI). (¶ 4.5)

Exceptions to Bank policy:

See procurement section directly below.

Procurement:

The thresholds above which procurement will be subject to international competitive bidding are: US\$200,000 for consulting services, US\$350,000 for goods and related services, and US\$2.0 million for civil works.

Three waivers to Bank procurement policy are approved in the BEAMS program: (i) Use of the trade name "Microsoft" for the purchase of productivity software; (ii) sole source purchase of specialized courseware, including specialized software "Success

Maker” from Computer Curriculum Corporation; (iii) sole source procurement of consulting services to implement the innovative technologies sub-component, from the firm that provided technical assistance to design the sub-component. (§3.20)

I. FRAME OF REFERENCE

A. Introduction

- 1.1 One of Guyana's urgent priorities, as it seeks to sustain strong economic growth, is to significantly improve the quality of basic education, and the negative impact of emigration on the stock of trained teachers. Although coverage is nearly universal at the nursery and primary levels, financial constraints and variations in quality have combined to produce an education system that is unable to provide acceptable levels of literacy and numeracy across geographic and socio-economic groups. Investments in the education of the next generation are likely to provide the only sustainable solution to the human resource capacity weaknesses that prevail at all levels. The vision driving improvement in the education sector is embedded in MOE's third, five-year *Education Sector Development Plan* (ESDP), 2002-2007. The plan is well advanced, has been vetted nationally, and will be submitted to Cabinet as a White Paper by September 2002. Moreover, the Government of Guyana (GOG) has emphasized basic education in the 1993 *National Development Strategy* (NDS), the 2002 *Poverty Reduction Strategy Paper* (PRSP), and in negotiations for debt relief through the *Enhanced Highly Indebted Poor Country Initiative* (E-HIPC). For these reasons, both GOG and the Bank have prioritized basic education in their investment portfolios.

B. Socioeconomic framework¹

- 1.2 Guyana is a small, low-income and thinly populated country with a predominantly agricultural economy. In the two decades following independence in 1966, extreme statist policies pursued by the country resulted in rising inflation, declining per capita income, a deterioration of social services, and massive emigration – the highest rate on record in the world². Beginning in 1988, important reforms were implemented under an Economic Recovery Program to stabilize the economy and to give the private sector a wider role. The improved policy framework had highly positive effects from the early 1990s onwards. During the 1991-97 period, real GDP growth averaged 7% per annum (compared to minus 3% in the 1980s), and inflation declined from over 100% (late 1980s) to 4.5%. Due to the resurgence in economic activity and only marginal population growth, Guyana's per capita GDP rose to US\$740 in 2001, slightly surpassing its previous peak in 1980.
- 1.3 Consistent with the economic recovery of the 1990s, absolute poverty³ at the national level declined from 43% in 1993 to 35% in 1999, and critical poverty fell from 29% to 19%, respectively. Nevertheless, the benefits of growth during that period were uneven, and deep pockets of poverty persist. The rural coast and interior regions account for 86% of all poor people living in the country, although considerable instances of urban poverty exist, especially in squatter settlements that contain 20% of the population of Georgetown. Levels of education among poor

¹ This section draws on Guyana's Interim-Poverty Reduction Strategy Paper (GOG: 2001), and on the IDB Country Paper for Guyana, 2002.

² W.Carrington, E.Detraigiache. *How Big is the Brain Drain?* International Monetary Fund, WP/98/102, 1998.

³ Source: 1993 Household and Income Expenditure Survey and the 1999 Living Conditions Survey.

households are lower than for the population as a whole. Although primary school enrollment is universal, the **enrollment gap** between poor and non-poor children while 12% at age 14, increases to 32% by age 16. Less than 15% of the heads of poor families have a secondary education. In 1993, it was estimated that over one third of all children under five in the first income quintile suffered from mild to severe malnutrition. Child malnutrition is strongly correlated with a low level of mother's education, delayed cognitive development, and student performance.

- 1.4 During the 1998-2001 period, economic progress was impeded by external and internal shocks including the *El Niño* drought and subsequent flooding; the loss of preferential agricultural markets, deteriorating export prices for bauxite and sugar; rising petroleum prices; a 66% public sector salary increase triggered by a major strike; and recurring political unrest. Despite Government's substantial policy efforts during the period, declining economic growth and export performance is reflected in the further deterioration of Guyana's macroeconomic indicators in 2001: The public sector deficit increased to 6.8% of GDP, the external current account deficit increased to 18.8% of GDP, private investment decreased to a decade low of 8.1% of GDP; while the rate of inflation decreased to 1.5%. In this respect, HIPC debt relief has played an important role in ameliorating the impact of external and internal shocks, and in attenuating the increase in poverty.
- 1.5 In October 2001, following extensive stakeholder consultation, GOG drafted a ten-year policy framework for economic development and poverty reduction. The economic program outlined in the PRSP, seeks to place the economy on a new growth path within a sustainable macroeconomic framework, structural reform, and poverty reduction. This arrangement is supported under the Poverty Reduction and Growth Facility, for which International Monetary Fund (IMF) approval is expected in May 2002. It will facilitate implementation of Government's structural reform agenda, including: civil service reform, budget reform, procurement reform, and the design of a Public Sector Modernization Program with IDB support.
- 1.6 In education, GOG sector priorities include: (i) universal primary and secondary education (by 2007); (ii) reduced functional illiteracy (by 2005); (iii) the equitable distribution of education services and resources. Guyana is expected to reach the completion point under the E-HIPC Initiative in mid-2002, at which point it would start to benefit from additional debt relief of US\$329 million in net present value.

C. **Structure of the education sector**

- 1.7 **Basic education** is comprised of two years of nursery education, six years of primary school, and the first three years of lower secondary. Participation at the primary and secondary levels is tuition free and compulsory to age 15.
- 1.8 **Nursery education** is aimed at promoting school readiness. It is offered to children between the ages of 3 years 9 months and 5 years 9 months in some 412 centers, of which 334 are discrete centers and 78 are located within primary schools. With a participation rate of 85%, Guyana's nursery enrollment is among the highest in the region. **Primary education** is comprised of a six-year program that is structured to equip children between the ages of 5 years 6 months and 12 with basic literacy and

- numeracy skills. Currently, about 105,000 students attend 431 public primary schools, representing a net enrollment of 95%.
- 1.9 **Secondary education** is offered in 69 General Secondary Schools (GSS), 35 community high schools, and 310 secondary departments of primary “all age” schools. Entrance into secondary school is limited, and determined around age 11 by the student's performance on the Secondary School Entrance Examination (SSEE) and by the number of available places. Generally, of those who pass the exam, the top 55% are placed in the more prestigious GSS, which offer a five-year academic curriculum. The remaining 45% are streamed into the secondary departments of “all age” schools and community highs, which offer 3 or 4-year programs that emphasize pre-vocational training in tandem with basic subjects. During the 2000/2001 school year, 58% of Guyana's eligible age cohort was enrolled at the secondary level.
- 1.10 The **technical vocational education training** (TVET) system offers training from age 15, at six specialized institutions. Entry requirements for TVET are low, as are overall pass rates. Public sector management of TVET has resulted in high levels of investment with low internal and external efficiency returns. Literacy and numeracy standards among TVET students and their vocational teachers are disappointing. Older polytechnic facilities are in poor condition and training equipment is outdated. Articulation with employers is weak, and methods of monitoring and forecasting workforce needs are absent.
- 1.11 **Higher education** is provided by University of Guyana (UG) at the undergraduate and master's degree levels in Arts, Education, Natural Sciences, Social Sciences, Technology, Agriculture, and Health Sciences. Two-year "Advanced Level" programs are offered in six senior secondary schools to prepare students who desire to be more competitively qualified for entrance into university, or the world of work. Cyril Potter College of Education (CPCE) provides pre-service and initial teacher training. The National Centre for Educational Resources Development (NCERD) provides in-service training for practicing teachers. Continuing education is available through the Adult Education Association and the Institute of Distance and Continuing Education.
- 1.12 **Private education** is relatively new in Guyana. Private schools do not receive government subsidies, nor are they subject to MOE supervision or accreditation. In 1998/99, less than one percent of the combined primary/secondary cohort was enrolled in the country's six private schools.

D. Sector Finance and Administration

- 1.13 Recent **patterns of education expenditure** show that education has become among the most important national priorities. Combined capital and recurrent expenditures as a percentage of GOG total expenditures (including public debt) illustrate a significant commitment to education, rising from 11.7% in 1999 to 16.8% in 2001. The PRSP confirms Government's serious intention to deal with the major challenges facing the sector through a planned increase in the national budget allocation from present levels to approximately 20% by 2005, and a commitment to sustain education's share at or above that level for the rest of the decade. It also

projects that expenditures in the education sector, as a percentage of GDP, are expected to rise from 4.0% in 1997 to an average of 8.4% for the period 2000-2005.

- 1.14 Salaries represent 82% of education recurrent costs. Using 2001 data, the average recurrent *expenditure per pupil* is US\$174, including salaries, or US\$30 excluding salaries. Total recurrent expenditure ranges from US\$140 to US\$289 per pupil reflecting significant regional variations in factors such as teacher qualifications, population density, transportation costs, and student-teacher ratios. Nursery, primary, and secondary education are provided tuition-free. Household expenditures required for uniforms and books are significant, particularly at the secondary level, and have a negative impact on the participation of poor children.
- 1.15 Notwithstanding GOG efforts to provide adequate financing to the education sector, national budget estimates provide a diffused picture of total *allocations for education services*. Since 1980, education administration has been decentralized to Regional Democratic Councils (RDCs) in each of Guyana's 10 administrative regions and to MOE for the administration of the Georgetown education district. The central MOE is also responsible for education policy, curriculum, assessment, teacher training, and TVET. Under this scheme, 77% of total recurrent expenditure is budgeted through RDCs to operate and maintain schools, pay teachers' salaries, and purchase supplies. Moreover, Ministry of Finance (MOF) executes capital expenditures under the Basic Needs Program; Ministry of Labour funds school rehabilitation through the Social Impact Amelioration Program (SIMAP), and Public Service Ministry awards scholarships. The implication is that the authority of MOE to strategically address priority issues is undermined by the allocation of sector resources to other ministries.

E. Sector Performance

- 1.16 A major challenge facing Guyana relates to the strengthening of education in an environment characterized by declining economic growth, weak institutional capacity, and the deleterious effects of decades of neglect and emigration. Guyana's education system was once regarded as one of the best in the Caribbean; however by 1980, years of socioeconomic decline resulted in the manifestation of extreme inadequacies in teaching and learning environments, including: deteriorating facilities; limited availability of texts and didactic materials; increases in the proportion of untrained teachers; limited opportunities for teacher upgrading and support; unattractive compensation packages; high teacher/pupil absenteeism; and an assessment program driven by constraints in secondary delivery rather than by attainment standards. Not only did the erosion of conditions for teaching and learning lead to a serious decline in pupil performance, it also led to a rise in the emigration of trained teachers to surrounding Caribbean nations, Africa, and North America, where teaching conditions and salaries are considerably better.
- 1.17 ***Literacy and numeracy.*** The creation of a skilled workforce, able to contribute to sustained social and economic development in Guyana, requires that the education system produce a critical mass of students who are literate, numerate, and trainable. Nevertheless, a high proportion of economically disadvantaged students fail to achieve learning standards established by the curriculum. When schooling is

effective, children attain basic literacy and numeracy at an early age, around the 3rd or 4th year of formal primary education. Though there is no valid normative information on primary-level literacy and numeracy in Guyana, data currently available⁴, would suggest that the majority of the primary cohort fails to reach this benchmark. A recent literacy consultant to Guyana⁵ estimated that as many as 60% of all primary students are functioning about three years below grade level, and approximately 25% of these are seriously failing. Considering that the top 75% of Guyana's secondary school children write the Caribbean Examinations Council (CXC) Secondary School Education Certificate exam upon the completion of secondary school, the results are alarmingly low for math and English. In 2000-2001, only 18% of the students who sat for the CXC achieved General Proficiency Level in mathematics, and just 25% achieved General Proficiency Level in English. Unless these problems are solved in the early grades, most students are pre-ordained to fail at higher grades, gaining little from their years in school.

- 1.18 Recent diagnostic and planning studies⁶ initiated by MOE have called for the development of an articulated national strategy for literacy and numeracy. Early student mastery in reading and math is also prioritized in the ESDP and PRSP. Through BEAMS, MOE will introduce curricular and pedagogical reforms that enhance student attainment in these core areas. Guyana's new instructional system will be based on cost-effective teaching methods and learning resources adapted to the realities of the country (many untrained teachers, crowded classrooms, limited funding, students with a wide range of abilities and backgrounds), and include targeted strategies to sustain quality improvement system-wide.
- 1.19 **Equity.** All measures of school performance in Guyana underscore the need to support the development of effective schooling in remote and poverty stricken regions where the academic performance of students is consistently lower than pupils in the more privileged, populated areas. The participation of children from low-income families is progressively reduced as the level and quality of education increases. Significant disparities in learning outcomes among children from different ethnic and economic groups suggest the existence of large inter-school and inter-regional variations. Results from the SSEE speak to these inequities. On the average, students in the most remote regions of the country (Regions 1, 7, 8, 9) obtain English scores that are 24% lower than the average score of students in the more densely populated regions. In mathematics the discrepancies are even higher, with the scores of disadvantaged students lagging by approximately 30%. Disadvantaged children are less likely to perform well in the SSEE, and are thus less likely to be selected into secondary school. Those who do enter, are often tracked to the lower-quality secondary departments of primary schools, or to community highs, that offer a limited program of instruction taught by less qualified teachers. Access to schools of comparable quality remains a critical area

⁴ Level 3 Mathematics and Language Arts performance was sampled in 25 schools to ascertain normative information relative to the Level 3 curriculum (NCERD).

⁵ Standard, J. 2001. Improving Standards of Literacy in Guyana's Primary Schools.

⁶ MOE/EDC. 2002. Basic Education Access and Management Support Program: Literacy and Numeracy Enhancement Subcomponent.

of concern, giving rise to angst among educators and parents about social streaming based on the exam.

- 1.20 The chronic under-performance of poor children correlates directly with the low level of key inputs such as trained teachers, textbooks, and other ***instructional resources*** in remote schools. A number of initiatives over the last 10 years have helped to build the availability of published materials in classrooms, and workshops have been conducted to assist teachers to make their own materials. Still, teaching and learning resources are limited and textbooks are often outdated. As part of its five-year strategic development plan, MOE has prioritized the equitable distribution of learning opportunities and resources for all children. BEAMS will assist MOE establish targeted intervention programs for disadvantaged students.
- 1.21 In the absence of other measures of student performance at the primary level, such as ***standardized testing*** or ***continuous assessment***, the SSEE is all-important, constituting 100% of the student's grade on leaving primary school. This heavy emphasis on a selection examination that ranks students against each other, rather than by mastery of attainment standards, results in serious distortions to equity and to the instructional process, as teachers teach to the test rather than the curriculum. MOE has taken a decision to establish a comprehensive national assessment system linked to clearly defined attainment standards and the new curriculum framework. MOE anticipates that a shift from normative testing to criterion-referenced tests and continuous assessment will restore valuable instructional time to the teachers and their students. BEAMS will support this effort through the establishment of a national assessment policy and its implementation nationwide
- 1.22 High levels of student and teacher ***absenteeism*** also contribute to the under-performance of the basic education cycle. Student absenteeism is significant, and ranges from 25% at the primary level to 46% (for males) in the upper grades of "all age" schools. Teacher absenteeism is problematic, averaging 16% system-wide. The combined impact of student/teacher absenteeism in some regions represents a loss of one-third to one-half of total instructional time. Through BEAMS, MOE will support community intervention programs that target attendance.
- 1.23 ***Teacher qualifications, supply, and demand.*** Of grave concern is the high proportion of untrained teachers in the system, and their placement in underserved areas where the need for equity targeting and intervention strategies is most acute. During 1998/1999, 27% of all practicing primary teachers had not completed secondary school with the requisite CXC passes to enter teachers college, and only 51% of the primary school teachers had any pedagogical training. In the secondary system, 8% of teachers had not completed secondary school and just 60% of the teaching cohort in GSS was formally trained. This problem is further exacerbated by the difficulty of stationing and retaining qualified teachers in interior schools, and by the exodus of about 14% of Guyana's trained teachers each year to developed countries for better paying jobs. The analysis of teacher supply and demand conducted by MOE during the preparation of BEAMS, indicated that most of the attrition is from trained teachers who leave the system with five to ten years experience and an undergraduate degree. The steady attrition of trained teachers

has created a vacuum among mid-level teaching staff and principals. As a result, young, inexperienced, and unprepared teachers assume substantive academic and managerial positions, particularly in the hinterland; and well-educated and trained teachers are over-represented in urban regions. Conversely, those who are untrained or have not completed secondary education are over-represented in rural and “all age” schools.

- 1.24 Critical to the strengthening of the education sector is GOG’s ability to ***attract and retain qualified teachers***. In 1999-2000, public service wage negotiations resulted in arbitration mandating large salary increases of 66%, which consumed a disproportionate share of original HIPC debt relief, severely reducing the flow of resources to other areas. Presently, Guyana’s Public Service Union has demanded additional wage increases of 35% for 2001 and 30% for 2002. If conceded, this alone would absorb more resources than the total E-HIPC debt relief. GOG has informed the Bank of its intention to address teacher remuneration within the context of a sustainable, government-wide public-sector modernization strategy (ATN/SF-6867-GY). BEAMS will inform this process through the identification of viable compensation strategies and the introduction of a sustainable program of non-pecuniary incentives.
- 1.25 MOE is working closely with the ***Teaching Service Commission*** (TSC), responsible for the hiring all teachers, to mitigate the negative impact of untrained and unqualified teachers in Guyana’s schools. Beginning in September 2002, the TSC will enforce the three-year term limit by which unqualified practicing teachers have to upgrade their qualifications or exit the system. At the same time, TSC will introduce new entry standards for practicing teachers, requiring secondary school completion and a minimum of three CXC passes. BEAMS will support the advancement of Guyana’s teaching corps through the extension of existing distance learning programs to upgrade the skills of all unqualified practicing teachers in the primary system, and by extension of a permanent in-service cluster-based training program supporting the new literacy and numeracy programs.

F. Organizational and human resource capacity

- 1.26 ***Education Management Information Systems*** (EMIS). MOE’s ability to monitor and drive sector performance is hampered by inadequate and unreliable data systems. Basic records are kept on paper, and computers are not networked. Information flow among MOE, schools, MOF, and RDCs is fragmented, and data analysis procedures are insufficient and too slow to generate useful, timely and accurate information from a management point of view.
- 1.27 Modern information technology is beginning to come on stream. MOE’s strategy will require the extensive use of existing investments in information systems and relatively simple technology. MOE efforts will need to overcome technical limitations (phone and connectivity), environmental constraints (unreliable power, high humidity), and scarcity of technically qualified staff. With Bank support, MOE will develop a limited set of applications for the management of schools, teachers, facilities, and sector performance. Development of an appropriate and effective EMIS linking MOE units, Regional Education Officers (REDOs), RDCs,

and the schools goes beyond installing computer systems. MOE's decision-making and planning capacity will also be enhanced by the adoption of transparent procedures, improved delegation to the regions, and the strengthened management and administrative function of principals.

- 1.28 ***Financial management.*** Expenditure data reported at the central and regional levels is inconsistent and incomplete. To illustrate, education administration costs are not identifiable; personnel and non-personnel costs are not always separated; nursery, primary, secondary, and tertiary education costs are not distinguishable; per-pupil costs by level or region are not generated. Some costs for education delivery in Georgetown are reported under the central MOE budget, thereby providing a false impression about central ministry expenditures. Current laws and regulation governing financial management date back to 1958, and business processes are inefficient, labor intensive, and information is difficult to retrieve and utilize. In the absence of an efficient system that produces timely, accurate information, MOE ability to engage in effective and comprehensive programming and budgeting for education purposes is seriously impaired. This, in return, limits the ability of senior officials and parliamentarians to make informed decisions pertaining to the allocation of resources and the probity of expenditures.
- 1.29 Development of a fully integrated financial management system is beyond the control of MOE's Finance Department, and will require comprehensive actions that include developing new relationships, procedures, and protocol between MOF, MOE, and RDCs. The Canadian International Development Agency (CIDA) is supporting modernization of GOG's financial management system through the Guyana Economic Management Program (GEMP). GEMP will automate GOG's financial and accounting system, with appropriate management accountability, and a modern legislative and regulatory framework. MOE has been selected as the first ministry to pilot the new system. Extension of the financial management system to the regional level will be coordinated with BEAMS support.
- 1.30 ***Organizational structure and working relationships.*** Organizational and institutional constraints affect MOE's ability to define policies and execute programs that support sector modernization. These constraints include: (i) centralized decision-making and fragmented implementation at the regional level; (ii) cumbersome bureaucracy and obsolete regulations that impede the deployment of financial, human, and material resources; (iii) unclear delineation of responsibilities between central MOE and local authorities; (iv) insufficient numbers of qualified managerial staff at MOE and in schools; (v) weak horizontal and vertical communication channels. Complex and unarticulated organizational relationships limit MOE's ability to manage resources on a sector-wide basis, to align policy to desired performance outcomes, and to introduce innovations and quality improvements. RDC's are not accountable to MOE for education outcomes; nevertheless they execute three-quarters of the sector budget, through an Executive Officer who is appointed by the Ministry of Local Government.
- 1.31 MOE understands the need to redefine and simplify the institutional arrangements in the sector. Senior administrators committed to improving the education system

show a high degree of flexibility and willingness to foster a new vision. The Ministry has completed an extensive Organizational Capacity Assessment, and is in the final stages of drafting its third ESDP -- resulting in a medium-term strategy and expenditure framework. BEAMS will support interventions to enhance the productivity and effectiveness of the education sector, including the redefinition of the mandate, duties, and responsibilities of MOE and other organizations.

- 1.32 ***The legislative framework*** governing education in Guyana was established in 1980. Over time, various MOE directives have attempted to regularize the relationships between REDOs and RDCs, however the directives have been only partially implemented and none has been legalized by Parliament. GOG has requested Bank support, through BEAMS, to conceptualize a comprehensive new ***Education Act*** and regulatory framework that will address current institutional limitations, will develop a robust structure that supports education quality, and is consistent with the strategic directions outlined in the ESDP, PRSP, and the NDS. The *Education Act* and regulations will be rewritten to reflect the institutional and organizational decisions made regarding the roles of MOE, RDCs, and school principals. A modernized system of education governance will strengthen the role of MOE to provide strategic management and technical guidance nationwide, and will delegate authority to RDCs and their regional educational committees, particularly in relation to the temporary engagement of teachers, financial management, and school maintenance.
- 1.33 ***Teacher deployment.*** The authority to engage, promote, discipline, or dismiss teaching staff is constitutionally assigned to TSC. However, TSC is unable to respond in a timely fashion to all the demands of teaching personnel, as it is currently structured and operating at the national level. Similarly, the Public Service Commission (PSC) hires and administers all non-teaching staff. The result is a complex, parallel system that is unable to supply adequate numbers of technically qualified personnel to classrooms, or to management and technical positions. To facilitate a rapid response to vacancies at local levels, personnel functions in relation to temporary teachers will be delegated to RDCs in tandem with the implementation of a new regional structure. BEAMS will support this delegation through the provision of resources to upgrade and articulate TSC and RDC management information systems, policies, and procedures.
- 1.34 ***Succession planning.*** Current projections paint a serious sustainability issue insofar as 48% of all primary level principals and 80% of all secondary level principals will retire by 2008. Similarly, of 10 REDO positions, four are currently vacant, and by 2008 the remaining six will have retired. The ability of GOG to plan for the next generation of senior teachers and education managers is critical to sustained sector improvement, and will comprise a key line of action in BEAMS.

G. Infrastructure and Maintenance

- 1.35 ***Access*** to quality secondary education is constrained by the uneven (“all age”, community highs, and GSS) and sparse distribution of schools in remote areas. Furthermore, years of neglect of furniture, equipment, and physical plants have resulted in an additional loss of capacity in a system that is already facing a

shortfall of coverage. Guyana is experiencing a steady stream of urban immigration in response to perceived educational opportunities in coastal towns. These changes have put existing secondary facilities under severe pressure in areas where capacity is grossly inadequate in relation to demand. Guyana has prioritized the need for universal secondary expansion in its ESDP and PRSP. BEAMS will support Government's efforts through a national school mapping exercise; via the construction of new and upgraded secondary facilities, including student dorms and teacher accommodations, in disenfranchised communities; and by the development of an equity strategy to rationalize resources in tandem with system expansion.

- 1.36 ***Maintenance of primary and secondary schools*** throughout the system is primarily the responsibility of the RDCs. Over the past 12 years, Guyana has made capital interventions in 57% of primary and 86% of secondary schools, and annual GOG allocations 1999 – 2000 for building maintenance was US\$2.8 million per year, or under 2% of the value of capital stock. There is currently a backlog of maintenance and rehabilitation of approximately US\$38.6 million, of which US\$20 million is expected to be addressed by external financing provided through SIMAP, World Bank (WB), Caribbean Development Bank, Department for International Development (DfID) of Great Britain, and European Union. The balance will need to come from GOG's own resources, and has been prioritized within E-HIPC. In the long run, schools can be properly maintained at approximately 2.5% of the capital costs. GOG has agreed to address the backlog and current maintenance requirements on an incremental basis over the life of BEAMS. MOE has also agreed to provide a discretionary maintenance allowance directly to the schools, which will enable basic maintenance activities to be carried out with community help. (See ¶s 2.43, 3.16)

H. The country's sector strategy

- 1.37 The actions proposed in BEAMS are consistent with the strategic objectives and performance targets expressed in the government's ***National Development Strategy*** 2001–2010, the ***PRSP***, and the ***ESDP***. Guyana's successful achievement of ***HIPC*** targets of May 1999 and of ***E-HIPC*** targets of November 2000 indicates the high premium government places on education as a link to economic development and poverty reduction. These initiatives appreciably impacted education sector expenditures, which climbed from 4.0% of GDP in 1997 to 8.5% in 2000.
- 1.38 ***Linkage with the PRSP.*** Guyana has pledged to continue implementing policies to engender higher growth rates, reduce poverty, and increase public expenditures in key social sectors. In education, government has prioritized: literacy and numeracy; universal secondary expansion; and the equitable distribution of educational resources. To achieve these goals, Government's strategy centers on: (i) curriculum reform and expanded access to technology; (ii) increased secondary access, especially in underserved and remote regions; (iii) teacher upgrading, retention, and performance incentives; (iv) equity initiatives and subsidies to enhance the participation of disenfranchised populations; and (v) MOE strengthening. BEAMS will assist GOG to achieve these objectives through a well-articulated, targeted program for improved school performance, enhanced organizational capacity, and

school construction. The success of these efforts will, however, depend on government's ability to enhance fiscal expenditures in the sector and to leverage policy reform through the targeted utilization of E-HIPC resources. (See ¶ 1.5) An EMIS system, to be established with loan resources, will enable GOG to monitor progress towards the achievement of both project and PRSP goals and objectives.

I. IDB country and sector strategy

- 1.39 BEAMS is consistent with the Banks' country strategy, which emphasizes accelerated socio-economic development, poverty reduction, public sector modernization, and the strengthening of social service delivery. The education sector agenda consists of increased public spending to meet the norms of other developing countries, and policy measures that enhance MOE capacity to manage and sustain quality improvement, while pushing for universal coverage.

J. Experience of the Bank and lessons learned

- 1.40 The Bank is a key stakeholder in the education sector. Under the *Primary Education Improvement Project (PEIP)*, 72% of Guyana's primary cohort benefited from access to improved and expanded educational facilities, 100% of all schools received qualitative inputs, including the provision of basic learning aids and in-service teacher training; and MOE was strengthened through the conduct of a comprehensive organizational capacity assessment and follow-up institutional strengthening. Originally designed as a five-year project, PEIP was approved in 1989 for a total of US\$51.6 million. Disbursement eligibility took over one year, and after five years of execution just 13% of the original loan was expended. Notwithstanding an initial slow start-up and implementation, PEIP is considered successful for having far exceeded its implementation targets in civil works and quality improvement. By 1998, PEIP had accrued a cost-savings of approximately US\$23.4 million under the civil works component, resulting from the downsizing of school designs and the economical prices tendered for school construction and rehabilitation. At the request of GOG, these savings were reformulated and PEIP was extended to provide for the upgrading and expansion of additional primary schools, the introduction of quality enhancement measures, and institutional capacity building. By April 2002, PEIP had achieved its developmental objectives under the reformulated program.
- 1.41 Implementation of PEIP and its reformulation has been a learning experience for the education sector and for the Bank. To properly *dimension loan resources* between Phase I and Phase II of BEAMS, a rigorous analysis was undertaken to evaluate loan performance and MOE *execution capacity* in the context of the recently concluded PEIP project as well as the proposed BEAMS initiative. The analysis noted a progressive improvement in loan execution since PEIP reformulation, elevating disbursements to the level of about US\$10.0 million/year, and allowing MOE to meet quality, institutional, and civil works targets. The Audited Financial Statements for 1999 and 2000 have been submitted to the Bank, and the internal control analysis has indicated no significant deficiencies. The analysis of execution capacity further observed that a critical mass of expertise in civil works, capital procurement, and project management, had been developed

within the PEIP PIU, thus enabling the cost-effective execution of school building. The capacity of GOG to sustain the estimated 2% increase in MOE recurrent expenditures generated by BEAMS was confirmed by the sustainability analysis using current E-HIPC projections for sector financing. (¶1.37).

- 1.42 SIMAP (985/SF-GY) has contributed to the improvement and extension of Guyana's primary schools. The Information and Communication Technology (ICT) Project (GY-0066) will develop and implement a strategy for e-government, and extend Internet connectivity to a limited number of schools and teacher training institutions (CPCE, UG, and NCERD). The Unserved Areas Electrification Program (GY-0065) will facilitate the provision of learning systems into regions not presently served by the electric grid. Public Sector Modernization Design (ATN/SF-6867-GY) will inform policy vis-à-vis teacher compensation, within the context of a government-wide initiative. The teacher supply and demand study conducted by BEAMS will provide valuable input into the design of that initiative.
- 1.43 Taking into account past delays produced by external constraints and unrealistic timelines, the Bank and GOG have agreed on a **multi-phased operation** over seven years. Slippage in the execution of civil works will be significantly reduced through the utilization of appropriate design standards, based upon construction models developed under PEIP. The participation of communities in the adaptation of the construction design briefs to the local environment and cultural norms will also facilitate a suitable, efficient utilization of resources. A fast-track system for the procurement of goods, works, and services will be facilitated through the utilization of processes and procedures already operational under PEIP. The current asymmetry of project management capacity between MOE and PIU will be addressed by implementing a *project management methodology* that facilitates the construction of knowledge and technical capacities within MOE line units, and by the continuation of a core group of project management professionals from the existing PEIP PIU into BEAMS (¶ 3.2 - 3.7). A robust Project Management Information System with linkages to budgets and the logical framework will enable MOE/PIU to track all project tasks and deliverables, and to integrate them into a master Education Management Information System that facilitates sector-wide monitoring and reporting (¶3.24). Given Guyana's performance under the reformulated PEIP, commitments made to the education sector under E-HIPC, the outcome of the technical and capacity analyses undertaken during loan preparation, and the project management methodology, the project team considers that the loan is appropriately dimensioned for MOE implementation.

II. THE PROGRAM

A. Goal and Objectives

- 2.1 The goal of BEAMS is to contribute to sustainable socio-economic development and equitable poverty reduction in Guyana. Program objectives include: (i) sustained, improved literacy and numeracy attainment through the primary cycle; and (ii) expanded secondary access in underserved areas and poverty zones.

B. Program Strategy

- 2.2 BEAMS was conceived as a comprehensive operation to provide a sustainable framework for enhanced sector performance and reform. The total estimated cost of the program is US\$56 million of which the Bank will finance US\$50 million. In view of the innovative nature of several proposed activities, and the need to initially build MOE's capacity to manage sector-wide reform, the operation will be executed in two phases. Each phase will constitute a separate loan: the first loan for US\$30 million over a four-year period; the second loan for US\$20 million over three years.
- 2.3 BEAMS has three components: (i) improved school performance; (ii) organizational and human resource capacity development; and (iii) civil works. The organization of the components and subcomponents is presented in Table II-1. **Phase I** will lay the foundation for lasting improvements in the equitable delivery of educational services, including early student mastery of core literacy and numeracy competencies. It will facilitate policy development and the implementation of strategic initiatives in capacity-building and institutional accountability. Increased access to secondary education will be supported through the development of a rationalized transition plan for universal secondary education and school construction. **Phase II** will provide a window of opportunity to generalize and consolidate quality initiatives underway in Phase I, extend capacity-building initiatives to the regional and local levels, and accelerate the transition to universal secondary education.
- 2.4 Readiness of the project to move to Phase II preparation will be determined by the extent to which specific triggers and benchmarks set forth in Annex II-1 have been fulfilled. The triggers and benchmarks to be assessed include quantitative, qualitative, and process oriented elements. When the Bank and GOG agree that project implementation is sufficiently advanced, MOE will initiate the external evaluation of Phase I based on performance indicators identified in the Logical Framework, of which the summary is included as Annex II-2. ***Bank consideration of loan financing for Phase II, will be contingent upon the outcome of an external evaluation of Phase I performance (¶3.29, Annex II-2, and confirmation of simultaneous progress in all components.*** The external evaluation will also provide an opportunity to introduce modifications to Phase II based upon lessons learned during Phase I execution, taking into consideration changes in the economic and/or political context.

TABLE II-1: PROGRAM COMPONENTS, SUBCOMPONENTS, AND ACTIVITIES	
SUBCOMPONENT	ACTIVITY
COMPONENT 1	IMPROVED SCHOOL PERFORMANCE
a. Literacy and Numeracy Enhancement	<ul style="list-style-type: none"> i. Define attainment standards for literacy and numeracy ii. Develop, acquire, and disseminate materials iii. Adapt and implement interactive radio instruction for numeracy in all primary schools iv. Roll-out literacy program v. Implement public awareness campaign vi. Consolidate community-school linkages via the “Compact for Literacy”
b. Innovative Technologies	<ul style="list-style-type: none"> i. Trial computer-assisted instruction, low-cost learning technologies ii. Integrate accelerated learning packages in low-performing schools iii. Media support for teacher training at the central, regional, and cluster levels
c. Teacher Preparation and In-Service Training	<ul style="list-style-type: none"> i. Develop in-service teacher training program for literacy and numeracy initiatives ii. Design pre-service program for literacy and numeracy iii. Train master trainers and cluster advisors iv. Cascade in-service training v. Upgrade unqualified teachers to qualified status
d. Student Testing and Continuous Assessment	<ul style="list-style-type: none"> i. Revise assessment policy ii. Develop transitional plan for SSEE elimination iii. Develop and administer benchmark assessments in literacy and numeracy, Grades 2, 4, 6
COMPONENT 2	ENHANCED ORGANIZATIONAL AND HUMAN RESOURCE CAPACITY
a. Educational Management Information Systems	<ul style="list-style-type: none"> i. Implement information system policies and procedures ii. Expand backbone MIS network iii. Develop EMIS systems and data bases for project management and sector-wide planning, including organizational, human, and financial resource management iv. Roll-out regional and school solutions for school administration v. Develop and implement plant and equipment management/maintenance system
b. Human Resources Development	<ul style="list-style-type: none"> i. Succession planning ii. Design and implement induction program for new school managers iii. Strengthen and expand Cadet program for leadership training iv. Launch certificate program for experienced school managers v. Establish in-service training program for educational management and supervision vi. Deliver on-shore Master’s-level training for senior MOE leadership
c. Institutional Strengthening	<ul style="list-style-type: none"> i. Restructure organizational working relationships ii. Revise Education Act and regulatory framework iii. Modernize sector governance, delegate authority to regional educational boards iv. Develop and implement budgetary information management system v. Support Guyana Economic Management Program implementation in MOE
COMPONENT 3	EXPANDED ACCESS AND PHYSICAL UPGRADING
a. Enhanced access and improved physical environments.	<ul style="list-style-type: none"> i. Construct new schools in underserved areas ii. Rehabilitate, upgrade, and extend existing schools <p>Construct student dormitories and teacher accommodations in rural and remote areas</p>

C. Program components

1. Improved School Performance (US\$ 9.70 million).

- 2.5 Aligned with the objectives of the ESDP and the PRSP, the School Performance Component will lay the foundation for early student mastery of literacy and numeracy skills. The component's objectives consider that all students will achieve essential reading skills by Grade 4, and demonstrate age-appropriate math skills by Grade 3. At the heart of MOE's strategy are curricular and pedagogical reforms in literacy and numeracy that transform the way that teachers think about and teach language arts and mathematics in primary schools. Bank financing will support the development and validation of a *system* of interrelated curricular and pedagogical interventions. Major lines of action include: (i) a modern curriculum in language arts and mathematics delivered through a balanced literacy model and an interactive radio instruction program, improved diagnostic and remediation services; (ii) community-based programs to elevate attendance, enhance equity, and restore literacy and numeracy to acceptable levels in all schools; (iii) a package of technological innovations and accelerated learning programs for low-performing and at-risk children; (iv) the introduction of modern technologies into teaching, learning, and school administration; (v) effective teaching methods that are aligned with the requirements of the new curriculum; (vi) establishment of a comprehensive system for student assessment and replacement of the SSEE.

a) Literacy enhancement (US\$ 3.13 million)

- 2.6 Literacy sub-component will assist MOE implement fundamental curricular and pedagogical reform in literacy instruction. Under the program, a learning materials package for student literacy and numeracy, including learning materials for differentiated learning, and acceleration and remediation will be provided for all children in Nursery through Grade 4.
- 2.7 The Bank loan will support international and national TA, goods, and other services to assist MOE establish age-appropriate attainment standards in literacy and numeracy, and to develop and implement a criterion-referenced strategy for the targeting of resources and interventions to underperforming and underresourced schools. During years 1-2, MOE will: (i) establish criteria for curricular revision; (ii) review existing nursery and primary school curriculum in language arts and mathematics; (iii) review current materials used for teaching literacy and numeracy, in Guyana and abroad; (iv) assess student mastery, teaching practice, and special needs requirements in a representative sample of schools across all 10 regions; (v) analyze the readiness of nursery-age children for transition into primary school.
- 2.8 Based upon the outcome of the review, assessment, and analysis described in paragraph 2.7 above, in years 2-4, BEAMS will assist MOE to develop and implement its new literacy program and create print-rich classroom environments in all nursery and primary schools. Bank financing will be used to: (i) develop, produce, and distribute a set of standards-based developmentally appropriate curricula materials in literacy and numeracy, including accelerated learning materials that respond to the differentiated learning needs of low-performing pupils and their teachers; (ii) update the Timehri readers and other indigenous resources recommended in the materials review; (iii) procure and distribute student reading

materials and remediation packages for classroom libraries in all nursery and primary schools, and supplemental learning aids for disadvantaged schools; (iv) produce and distribute detailed teachers' guides; (v) strengthen the curriculum development, oversight, and implementation capacity of NCERD.

- 2.9 Community involvement is central to the successful execution of MOE initiatives in literacy and numeracy. A nationwide public-awareness campaign will be conducted over the life of the program to engage stakeholders in these reforms. The campaign will be reinforced by workshops at the school level that support community linkages and mobilize parental involvement. All nursery and primary schools will be encouraged to form a "Compact for Literacy" with their SIAC or PTA, thus enabling them to receive additional literacy support materials for community members. Incentive grants (§ 3.12) will enable participating schools to implement interventions that enhance student literacy and increase attendance.
- 2.10 Implementation of the new literacy program will take place in a staggered fashion with limited coverage during the first two years to allow for thorough analysis of the implementation process. By the end of phase I, the literacy approach will be used in all nursery schools and in the first two grades of every primary school. Approximately 3000 teachers, MOE officials, and local specialists will be trained in the new pedagogical approach, 80. Teachers will be trained in curriculum writing and materials development, and all pupils will benefit from new pedagogical methods, instructional materials, and book. All nursery and primary schools will receive differentiated reading materials for every classroom library through grade 4, as well as literacy materials and financial resources to enhance the work of SIACs and PTAs enrolled in the Compact for Literacy. Phase II will complete coverage through all four primary grades in all schools.

b) Innovative technologies (US\$ 2.68 million).

- 2.11 ***Interactive radio instruction (IRI) for numeracy enhancement.*** IRI will directly provide core instruction in mathematics for all students in primary grades 1-3. IRI is a radio-based distance education system that has successfully increased student achievement in school systems that lack well-trained teachers. IRI is low in cost, averaging about US\$1.00 per student/year.
- 2.12 The provision of loan resources for national and international TA goods, and training will bring mathematics learning solidly into a Guyanese context through the rapid adaptation, development, pre-testing, distribution, and broadcast of a series of approximately 450 programs of 25 minutes duration each. Teacher guidance is encompassed in the broadcasts. The development and procurement of supplemental learning materials will further enhance math instruction for children in Grade 1-3. The production of teachers' guides (5000) will facilitate teacher-led enrichment activities while building teacher mastery of core subject matter.
- 2.13 To reach all classes, a combination of radio and CD recordings will be deployed. Wherever electricity is unavailable in primary schools, "freeplay" radios will be extensively used, which operate through hand-cranked dynamos, solar power, and rechargeable batteries. In areas unreached by radio broadcasts, battery-operated CD players will be used. Through these means, all 58,000 students in Primary Grades 1-3 will benefit from IRI Math by the end of Phase I.

- 2.14 **Computers** will be employed in 20 schools, providing 12,000 students with the guided practice that some children need to master basic literacy and numeracy skills. Emphasis will be placed on students needing additional assistance and/or remediation, who typically are from the most disadvantaged backgrounds. Five schools will be equipped with computer labs for individualized programmed learning, expanding a model developed by MOE under PEIP. Five weeks of training will be provided for three teachers from each school to manage the computer-based instruction. Five schools will experiment with other models of computer facilitation for literacy and numeracy. 10 Schools will experiment with lower-cost "personal computing devices". The intent is to pilot a computer strategy of lower cost and technical complexity, that Guyana can then apply to a larger number of its schools.
- 2.15 A **"low-tech" method** of providing individualized support for at-risk students and pupils with learning differences will be supported in 110 schools. Commercially available "Accelerated Learning Packages", consisting of self-instructional print, pictorial, and audiocassette materials will assist particularly needy students in their mastery of basic reading skills, such as phonics.
- 2.16 **Media support for teacher training.** Multi-media will extensively support the training of teachers in the skills of effective literacy and numeracy instruction. Teacher training modules using video, computer, and later Internet technologies will be created and integrated into every aspect of BEAMS literacy and numeracy training to model effective teaching techniques. Guyana's instructional materials production will be enhanced through training for NCERD staff; and local production of literacy and numeracy teaching aids at the RDCs will be facilitated.
- 2.17 **Technological support for testing and assessment.** Implementation of BEAMS testing and assessment will be made practicable through the provision of scanning, reproduction and analysis equipment for NCERD and several Regional offices.

c) Teacher preparation and in-service training (US\$ 2.67 million)

- 2.18 This sub-component will support the effective integration of the curriculum, technology, and assessment initiatives, through the establishment of a permanent system for **teacher in-service training, upgrading, and supervision**. The new system will be organized around a cascade, cluster-based training scheme. During Phase I, a core group of 20 Master Teachers, will receive professional support, extensive training, didactic materials, training manuals, video equipment, and supplies, that support teacher skill development in literacy and numeracy. The Master Teachers will be drawn from UG, CPCE and NCERD, as their participation will strengthen the capacity of these institutions. The Master Teachers will train 90 Cluster Literacy and Numeracy Advisors, who, with the support of the Master Teachers, will train approximately 6,700 primary and nursery teachers in literacy and numeracy methods for classroom use, instructional planning, and continuous assessment. Each Cluster Advisor will serve an average of five nearby schools, on a systematic and permanent basis, providing monthly cluster training events, and regular monitoring of curricular implementation during school visits throughout the year. Evergreen training materials that model best practice will be produced to support the training. To effect implementation of the literacy and numeracy

strategies at the school level, Head Teachers (principals) representing all nursery and primary schools in Guyana, will be trained in instructional and administrative leadership.

- 2.19 Cluster centers will facilitate the permanent organization, work, and upgrading of teachers. They will serve as instructional resource centers, whereby teachers can receive instructional materials and continuous pedagogical support from the cluster advisors. The lead school of each cluster will be equipped with audio and video technology; a computer, printer, software, and Internet access where feasible; and didactic materials in print, video, and audio. Each cluster center will be networked with a larger, RDC resource center, thus facilitating an organized exchange of information and resources from the school, to the REDOs, and with CPCE and NCERD. Pre-service training will be aligned with the new curricular reforms and teaching methods, and more closely articulated with in-service training, to permit continuity between programs and a common system of accreditation. The skills of all 1300 teachers in the primary system who lack the basic academic qualifications for entry into CPCE will be upgraded through the extension of scholarships to the Guyana Basic Education Training program, an existing program using distance education for teacher skills upgrading. Resources of the loan will finance the procurement of national and international TA, goods and other services for all component activities, including the production of teachers' guides, and related training materials.

d) Student assessment and testing (US\$ 1.22 million)

- 2.20 This sub-component will strengthen the capacity of MOE to use performance data to inform instructional practices and educational decision-making at the national, regional, and local levels. Loan resources will assist MOE procure the TA, goods, and services to develop and implement a national assessment strategy that will facilitate replacement of the SSEE with a true measure of student attainment. During year 1, short-term professional attachments are anticipated to countries that have successfully implemented assessment reform in primary schools. Assessment tools will be developed to aid teachers in the continuous assessment of student progress, which is a critical element of effective early literacy attainment. The project will create, for the first time, standardized assessments in literacy and numeracy for Grades 2, 4, and 6. The grade 2 diagnostic test and grade 4 mastery test will be administered to all students beginning in years 2 and 3, respectively. The grade 6 test will be piloted in year 4, and generalized during Phase 2. Analysis of student progress on those tests will permit early diagnosis and remediation of difficulties faced by individual students. It also will provide feedback to guide MOE modification of literacy and numeracy interventions. Extensive technical training and support for MOE staff and teachers will be provided in three essential areas: disseminating test information in an appropriate fashion; using test results for policy purposes; and using results to guide school quality improvement efforts. Assessment efforts will serve approximately 4,000 teachers and 105,000 students in Guyana's primary education sector by the end of Phase I.

e) Phase I outcomes and accomplishments

- 2.21 By the end of Phase I, BEAMS will achieve the following Component 1 outcomes: (i) a statistically significant increase in student performance on age-appropriate standardized tests in language arts and mathematics, among children participating in the Program; (ii) a significant increase in the number of qualified teachers in remote, underserved regions; primary teacher competencies in literacy and numeracy increased; (iii) transition from normative testing to the meaningful use of criterion referenced testing and continuous assessment to monitor and improve student and sector performance; (iv) enhanced community and parental involvement as demonstrated by the number of functioning SIACs and PTAs. A summary description of the evaluation framework is included in Annex II-2.

2. Organizational and human resource capacity (US\$ 3.47 million).

- 2.22 Component 2 will support key recommendations of ESDP to improve the managerial capabilities of MOE to deliver quality educational services, bolster its leadership role, decentralize the management of operations, improve the competency of teachers, and reduce the loss of valuable human resources throughout the system. The Bank will finance the TA, equipment, materials, and training required to implement the three sub-components below.
- 2.23 The project will develop a strong organizational base and effective management systems that focus on quality and accountability. TA, materials, and training will map and modernize operational policies and procedures at the central and regional levels, realign functional responsibilities to the ESDP, and strengthen core managerial competencies. Sub-component activities will: (i) strengthen MOE decision-making capacity through development of an integrated EMIS that will be sufficiently robust to enhance the composition and accountability of education sector spending, and to measure indicators required under PRSP; (ii) implement strategies to strengthen four principal areas of MOE management (national strategic education policy, central ministry operational policy, regional education support functions, school and community-based interventions); (iii) address teacher supply and demand, succession planning, and compensation/incentive policy as needed to attract and retain trained teachers, principals, and MOE administrators.

a) Educational management information systems (US\$ 1.22 million)

- 2.24 MOE will strengthen its monitoring and evaluation capacity through the development of an integrated EMIS, that will support asset management and instructional activities including human resources, student rosters, infrastructure, financial resources, and sector performance. The final product will be a common database capable of integrating the entire organization in a consistent fashion that will support the activities of the reformed education sector. EMIS will consist of a limited set of applications for management of schools, teachers, and facilities using a database that integrates the individual applications and its accessibility over a network to MOE, regions, and select schools.
- 2.25 Loan resources will provide TA, goods, and services to EMIS through seven lines of action: (i) define formal EMIS policies and procedures covering how systems are to be acquired, used and supported, including hardware and software standards,

security, access and support; (ii) augment EMIS staff (eight in RDCs and three in MOE) to implement EMIS, and provide training in project management, systems analysis, user support, database technology and networking; (iii) install a backbone consisting of local and wide area networks to facilitate the distribution and integration of data, communication, and internet access. Define sub-networks, the information protocol addressing scheme, firewalls, and how EMIS should connect MOE to ICT Project networks; (iv) continue rollout of two partially implemented school information management systems to the regions, and an integrated manual system for schools without computers (relying on data entry at the regions); (v) develop protocol for integrating EMIS data from financial, human resource management, school management, and performance measurements; (vi) develop a project management information system (PMIS), based on productivity and project management software, that tracks the tasks and deliverables of individual projects and ties them into an overall MOE master plan and logical framework, providing performance information shared by both project implementers and senior managers; (vii) develop a school plant and equipment management information system utilizing a relatively inexpensive third-party system.

- 2.26 In tandem with the roll-out of Guyana's electric grid and connectivity options provided under the ICT Project, by the end of Phase I, at least 100 schools will receive one computer, printer, Uninterrupted Power Supply (UPS), peripherals, and software; at least eight administrative regions will receive four computers, UPS, software, and a printer. National and international TA will support the development of the network, its databases, and expansion at the regional level. Intensive training will be provided for MOE staff involved in EMIS, at least 200 persons will be cross-trained as "super-users" at all levels. Within the EMIS unit, a detailed monitoring system to discover problems and intervene immediately will be established.

b) Human resources development (US\$ 1.17 million)

- 2.27 The fundamental changes in education management and practices described in Chapter I require a robust program for change management and professional development of educational managers. Loan resources will support human resource capacity development and MOE's ability to sustain the improved quality of education through the provision of TA, goods, and services. The results will lead to an organization structure and culture that reflect a modern management environment and opportunities for professional advancement.
- 2.28 An MOE task force will establish a *succession-planning framework* to enhance leadership and managerial capacity throughout the education sector. Technical support will be provided to: (i) adjust the job specifications to the new MOE organizational structure; (ii) conduct a skill-gap analysis; (iii) identify future vacancies and select a cadre of replacements; (iv) assist in the development of a performance appraisal system; (v) create professional development resource centers; and (vi) equip and operate a management training center.
- 2.29 Beginning in year 1, MOE will design and implement an *induction program* for school managers, in order to address the high turnover of personnel and to improve compliance with ministry policy. The program will cover management and

- administrative training for new recruits. On an annual basis, MOE will train/orient approximately 25 regional education officers, who in turn, will conduct one-week regional workshops and monthly professional development sessions for approximately 330 principals, senior teachers and officers.
- 2.30 MOE will develop, in collaboration with the relevant services commission, a *cadet* program to attract bright, talented young people to management positions in the education sector, that combines a 12-month management internship with an ongoing training program. The expected outcome of this collaboration will be the accelerated placement of approximately 30 candidates into management positions.
- 2.31 MOE will develop and implement a ***certificate-training program*** for qualified school managers covering topics on leadership, education administration, personnel and financial management, and school effectiveness and governance. The program is targeted to 315 school principals/managers who have five and more years of service in the system. Negotiations with UG are to be conducted to have the training recognized as a certificate program.
- 2.32 Senior-level management capabilities will be improved through a focused ***management and supervision training*** program, targeting 35 experienced MOE and regional officers and managers. The program will deal with topics such as strategic and operational planning, managing educational delivery, managing community relations, and communications and conflict resolution. Successful completion of the program is expected to fulfill credit requirements for the UG Masters Degree program, described below.
- 2.33 With the succession-planning program coming on stream at the end of the year 1, MOE will organize opportunities for incumbents and potential managers to attend short courses for advanced training in education administration and a ***master of education*** program. One or more foreign universities will collaborate with UG to deliver the program onshore, with the intent of developing and institutionalizing local capacity to offer such programs in the future. Target populations include a cadre of 30 to 40 senior administrators for the M.Ed. program. This program will develop a pool of graduates with international exposure to assume leadership positions in the educational sector.
- 2.34 ***Teacher supply, demand, and incentives.*** In Guyana, attrition is not simply an issue of teacher supply, but rather an issue pertaining to the retention of experienced teachers at all levels in the system. During year 1, the loan will provide technical resources and policy analysis to assist GOG develop and implement viable policies for teacher retention and remuneration within the context of a sustainable, government-wide public-sector modernization strategy (ATN/SF-6867-GY). BEAMS will further inform this process during years 2-3 through the provision of TA, goods, and services to pilot a comprehensive program of non-pecuniary incentives to attract and retain trained teachers and principals including: (i) the expansion of an existing distance education/certification program whereby all practicing (unqualified) teachers who wish to convert to permanent status can upgrade their educational status, teaching qualifications, and compensation; (ii) the provision of residential accommodations to attract and retain qualified teachers in remote schools; (iii) the establishment of a permanent system of teacher

professional development and support at the cluster level; (iv) workplace improvements including the provision of technologies and teaching resources in all primary schools. Year 4 activities will continue to build on initiatives introduced in the previous three years. In addition, through the collective bargaining process, MOE will commit to working with the union to introduce wage incentives within the existing structure of teacher remuneration to favor trained and qualified teachers, and their placement in remote schools.

c) Institutional strengthening and financial management (US\$ 1.08 million)

- 2.35 The institutional strengthening and financial management sub-component will assist the MOE in strengthening the collaborative partnership of the many constitutionally-established entities involved in the education sector. The Borrower will strengthen and widen the membership of the existing National Education Commission (NEC), which is legally recognized under the *Education Act*. The Minister of Education will request that NEC review the governance, structure and institutional capacity of the education sector, and make recommendations to MOE on national education policy for consideration in the development of the new *Education Act* by mid-2003. These recommendations will address: (i) the role and functions of all organizations responsible for delivery of education services and employment of teachers in Guyana; (ii) modernization of MOE structure and procedures; (iii) management practices dealing with changing staffing needs and technology introduction; and (iv) policies and funding formulas that support the equitable distribution of human and financial resources to disadvantaged schools. International and local TA will support NEC efforts to develop a memorandum of policy and to review the draft, new Education Act. Members of NEC and other senior MOE and RDC officials will participate in short-term professional attachments to gain broader exposure to education management structures and organizational cultures.
- 2.36 Working in close collaboration with the Office of the President and the Ministry of Local Government, an MOE working group, with the technical support of international and national experts, will prepare a draft memorandum of policy, and review and make recommendations on a modern Education Act to the Chief Parliamentary Council, for presentation to Parliament no later than the early 2004. The new legislation and its regulations should define the duties, powers and authorities of the principal central and regional agents in the governance and delivery of education.
- 2.37 Parallel to developing the *Education Act*, MOE will initiate efforts to modernize education governance and management resulting in greater public accountability. MOE capacity to define and monitor national education policy will be enhanced. Likewise up-to-date information and financial management systems will strengthen the operational and administrative capacities of the regional education committees and regional education offices. TA will support developing new job descriptions, revising procedures and desk manuals, and organizing training to promote and sustain modern management practices. Included herein are actions to strengthen

and modernize the operations of the TSC Secretariat, the School Board Secretariat, and the National Education Commission.

- 2.38 BEAMS will support MOE's continued efforts under the GEMP initiative, to implement ***an integrated financial management system***. MOE has been selected as the lead pilot ministry for implementation of GEMP, for which MOE will utilize loan resources to purchase computer equipment, software, connectivity, and technical support. As MOE moves to policy driven resource allocation, major changes in business processes and extensive training and staff organization will be undertaken. BEAMS technical assistance will support MOE to: (i) define the type and nature of financial information required for effective decision-making; (ii) develop a system to identify all education expenditures in the national budget; (iii) prepare a detailed chart of accounts that ensures the collection and analysis of financial data in accord with the upgraded governance and management structure.

d) Phase I outcomes and accomplishments

- 2.39 By the end of Phase I, BEAMS will have met the following Component 2 outcomes: (i) *Education Act* submitted to Parliament; (ii) EMIS data bases covering human resources, students, infrastructure, finances, and sector performance, informing educational policy and decision making; (iii) provision of an affordable program of remuneration and incentives, professional development opportunities, and improvements in the workplace environment that attract and retain trained teachers; (iv) functional mechanisms providing educational resources, small grants, and physical maintenance resources directly to schools.

3. Infrastructure program (US\$15.0 million).

a) Facilities construction, rehabilitation, and expansion

- 2.40 BEAMS will prioritize the provision of additional spaces at the secondary level to help support the government's policy of universal secondary education as described in the ESDP. Loan resources under this component will finance civil works, goods, and services related to the design, construction, furnishing, and equipping, and rehabilitation of 12 secondary schools in underserved communities of which: (i) five will be new schools; (ii) two will be rehabilitations; and (iii) five will be extensions with some rehabilitation/upgrading. In addition, five of these institutions in rural and remote regions will be provided with student and staff accommodations.
- 2.41 The proposed school construction will provide/rehabilitate approximately 6,650 secondary student places of which 4,550 will be new /additional places (1,750 extension places), and 2,100 places rehabilitated. Accommodation will be provided for 540 students and 18 teachers in remote hinterland areas. New schools, residential accommodations, and extended facilities, will be equipped with furniture, and agreed equipment and supplies (for science and computer labs), per MOE norms. All sites constructed or improved under BEAMS will comply with targeting criteria agreed in the component master plan. (See ¶ 3.14)

b) School maintenance

- 2.42 Given the scope of prior Bank investment in school infrastructure under PEIP and SIMAP, as well as that proposed under BEAMS, GOG has committed to address the financing gap in school maintenance through a progressive increase in the annual allocation of budgetary resources to school maintenance over the life of the project, to reach the minimum level of US\$3.9 million per year, required for the appropriate maintenance of schools (see ¶ 3.16).
- 2.43 Small grants for school maintenance will be devolved to SIACs during Phase I of BEAMS. Joint MOE/SIAC and PTA committees will be established in all BEAMS schools to monitor and respond to pressing maintenance needs. This would be a prior condition for inclusion of the school at the construction stage. Maintenance manuals developed under PEIP will be reproduced and used as a guide for the field operations of the committees. Training seminars will be held by PIU to assist participating committees to prepare to receive and manage maintenance resources. The EMIS sub-component will develop a comprehensive database to track school maintenance status, requirements, and compliance with the agreed maintenance targets and reporting requirements.

c) Phase I outcomes and accomplishments

- 2.44 By the end of Phase I, MOE will have met the following Component 3 benchmarks: (i) delivery of the first lot of new and refurbished secondary schools and expanded secondary departments in underserved areas in accordance with the transition plan for universal secondary expansion and resource rationalization; (ii) increase of 4550 new secondary places facilitating a 5% increment in student transition from primary to secondary schools.

D. Program execution and unallocated expenditures (US\$ 4.13 million)

- 2.45 US\$2.44 million is included in the project for operation of the Project Implementation Unit, US\$0.69 million for program monitoring and evaluation, and US\$1.0 million for unallocated expenditures.

E. Costs and financing

- 2.46 The total direct cost of Phase I is US\$32.3 million. Associated financing costs including interest, commitment, and inspection fees add an additional US\$1.2 million, for a total program cost of US\$33.5 million. IDB loan resources of US\$30.0 million will finance a combination of physical infrastructure, materials and equipment, consultant's services, training, incremental operating expenses, financing costs, execution, and unallocated expenditures. The breakdown by investment category is presented in Table II-2.

Table II-2: ILLUSTRATIVE COST TABLE (In US\$ Millions)				
INVESTMENT CATEGORIES	IDB LOAN	LOCAL COUNTERPART	TOTAL PHASE I	% TOTAL
SCHOOL PERFORMANCE				
Curriculum Development	2.88	0.25	3.13	
Innovative Technologies	2.43	0.25	2.68	
Teacher Preparation and In-Service Training	2.52	0.15	2.67	
Student Assessment and Testing	1.07	0.15	1.22	
Total Costs of School Performance Component	8.9	0.80	9.70	27%
ORGANIZATIONAL & HUMAN RESOURCE DEVELOPMENT				
Educational Management Information Systems	1.05	0.17	1.22	
Human Resources Development	1.00	0.17	1.17	
Institutional Strengthening	0.92	0.16	1.08	
Total Costs of Institutional Component	2.97	0.50	3.47	10%
INFRASTRUCTURE				
New Schools/Replacement School	8.00	1.16	9.16	
Rehabilitation, Extension, Upgrading (existing)	5.10	0.74	5.84	
Total Costs of Infrastructure Component	13.10	1.90	15.00	45%
PROGRAM COORDINATION				
Monitoring and Evaluation	0.69		0.69	
Project Implementation Unit	2.44		2.44	
Total Costs of Program Coordination	3.13	0.00	3.13	9%
UNALLOCATED COSTS	1.00	0.00	1.00	3%
SUB TOTAL PROJECT COSTS	29.10	3.20	32.3	96%
FINANCIAL & SUPERVISION COSTS				
Interest (1% grace period, 2% thereafter)	0.60		0.60	
Commitment Fees (0.5% on undisbursed balances)		0.30	0.30	
IDB Supervision Costs (1% of loan)	0.30		0.30	
Total Financial Costs	0.90	0.30	1.20	4%
GRAND TOTAL	30.00	3.50	33.50	100%

F. Terms and conditions of the loan

2.47 The Bank loan of US\$30million will account for 90% of total project costs, distributed over the four-year period of Phase I of the multi-phased operation. Local contributions covering the remaining 10% will be allocated to support the financing in each of the components. IDB financing will be drawn from the Fund for Special Operations. The following Table II-3, shows the terms and conditions of the loan.

TABLE II-3. CONDITIONS OF FINANCING	
Source of Funds	Fund for Special Operations
Amount	US\$ 30 million
Terms: Amortization period	40 years
Grace period	10 years
Interest rate	1% first 10 years, 2% thereafter
Inspection and supervision	1% of the loan amount
Credit fee	0.5% per year on undisbursed amounts.
Currency	US dollars

III. PROGRAM EXECUTION

A. The borrower and executing agency

- 3.1 The Borrower is the Cooperative Republic of Guyana. The executing agency is the Ministry of Education.

B. Program execution and administration

- 3.2 Project implementation will rely on an *integrated management model*, whereby MOE maintains overall responsibility for achieving program objectives, executing all interventions, and financial oversight. Under this model, MOE units will develop and execute the school performance and institutional strengthening component activities of BEAMS. MOE unit directors and senior officers will manage the implementation of assigned sub-components using annual workplans and an integrated PMIS. Short- and long-term technical assistance will be mainstreamed directly into MOE line units to enhance implementation capability, support task management, and engender an effective transfer of skills and technology. In addition, succession planning and internal training for senior and middle managers during Phase I will ensure that MOE develops the critical mass and internal capacity required to sustain the program over time.
- 3.3 The proposed integrated management model relies upon effective integration among all MOE units and NCERD, CPCE, UG, and the RDCs. A *Project Management Council* (PMC), chaired by the Permanent Secretary, forms the core management body of BEAMS and reports to the Minister of Education. Comprised of the directors, managers and principal officers of the MOE, regions and above-mentioned entities, the PMC will align BEAMS implementation plans to education policy, facilitate project decision-making, and sanction project execution. The PMC will meet monthly to program activities, resolve internal problems, and promote effective networking among department heads that are the component leaders/managers. The PMC will monitor progress against substantive qualitative and quantitative targets and benchmarks. The manager of the Project Implementation Unit (PIU) will provide the secretariat function to the council.
- 3.4 Department heads and principal officers who are assigned specific responsibilities for executing BEAMS will form *Technical Coordination Units* (TCU) for each component and sub-component. TCUs are responsible for bridging broad plans and objectives to the tactical implementation and internal coordination required for the execution of each component. TCUs report within MOE line structure. In addition to carrying out BEAMS activities, each TCU will contribute to the modernization of MOE core competencies. Chaired by the respective division head, TCUs will include MOE staff, contract staff, and consultants working on the sub-component. Chairpersons will be responsible for administrative articulation with PIU and for approving all deliverables.
- 3.5 A relatively modest *Project Implementation Unit* will be responsible for general project administration, coordination, monitoring, and procurement. Reporting directly to the MOE Permanent Secretary, the PIU manager consolidates the administration of all elements of the project. Building on the existing capacity of the recently completed PEIP project, the PIU will execute activities that lie

outside MOE's core functions, such as civil works. It will also conduct the treasury and accounting functions for the project. The PIU is designed as a facilitative and support service to ultimately strengthen the various MOE divisions and units responsible for BEAMS implementation. PIU will place long-term technical consultants in the MOE, assist line units to develop annual workplans, provide timely procurement of goods and services as required, and develop modern administrative tools and procedures. ***Satisfactory submission of evidence to the Bank that GOG has: (i) approved the structure of the PIU; and (ii) appointed the project manager and three key staff (Financial Manager, Civil Works Manager, Procurement Officer) will be a special condition precedent to first disbursement.***

- 3.6 To effectively implement the program, MOE will require the timely support of various other government ministries and agencies. An ***Inter-Ministerial Commission*** (IMC) will be created to provide strategic policy direction and oversight for implementing actions that extend beyond MOE's direct authority. Membership on the commission will include senior officials and policy makers from MOF, RDCs, TSC, PSC, and others as needed. Chaired by the Minister of Education, IMC will provide a forum to consider key GOG initiatives as they relate to the education sector, such as E-HIPC, public sector wage negotiations, and the legislative agenda including modernization and decentralization of the state, and will meet quarterly.
- 3.7 MOE will create a new permanent position of ***Strategic Program Director*** reporting to the Chief Planning Officer and responsible for oversight of the strategic implementation of sector-wide initiatives. This position will promote MOE's Education Sector Development Plan and the efficient utilization of resources therein, and will be responsible for providing secretariat services to the IMC. ***Cabinet approval of the Education Sector Development Plan is a special contractual condition prior to first disbursement of the loan.***
- 3.8 ***Coordination with the donor community*** will contribute to the successful implementation of BEAMS. CIDA will provide continued technical support to the implementation of GEMP, while BEAMS will provide resources for the required hardware and networking. Likewise, the CIDA-funded Guyana Basic Education Teacher Training and the DfID supported Guyana Distance Education projects will be expanded under BEAMS to provide all primary teachers with an opportunity to upgrade their educational qualifications. Construction of new secondary schools under BEAMS will meet the standards required to implement the new general secondary curriculum developed under the WB Secondary School Reform Program and the DfID Guyana Education Access Project.

C. Implementation mechanisms

- 3.9 A comprehensive ***logical framework*** (Annex II-2) was completed for BEAMS containing performance-based outcomes and output indicators, to facilitate a steadfast commencement and sustainable execution of the program. Master plans that contain baseline data, progress indicators, TA requirements, costs, external constraints, implementation strategies, implementation timetables, and criteria for targeting project resources, were developed to guide the effective implementation of each sub-component.

- 3.10 Orchestration of BEAMS initiatives on a day-to-day basis will require that MOE develop a set of implementation and procedures manuals. The ***implementation manual*** is an operational framework that disaggregates the overall BEAMS Master Plan into manageable annual operational plans of action, including articulated implementation targets, performance benchmarks, terms of reference, timelines, responsibilities, and costs by sub-component. The implementation manual is closely linked to the PMIS that will generate data on and track loan execution. The implementation manual will be updated annually. The ***procedures manual*** sets forth the administrative and financial rules, instruments, and procedures for carrying out routine operational tasks. This manual outlines steps and assigns responsibilities to ensure efficient administration, transparency, and due diligence. Flow charts and administrative procedures for procurements and disbursements will be included in the manual. The procedures manual will expedite routine operational procedures, and will be associated with the integrated financial management system to come on stream. The procedures manual will be updated as procedures evolve and modernize. ***Bank approval of the implementation and procedures manuals, and the Phase I Action Plan is a special condition prior to first disbursement.***
- 3.11 ***International and local consultants*** will be mainstreamed directly into MOE technical units to support MOE implementation and management of the educational quality, institutional strengthening, information systems, project management, civil works, and monitoring activities in BEAMS. MOE unit heads will be responsible for generating consultants' terms of reference, providing managerial oversight, integrating counterpart personnel, guiding implementation, and signing-off on deliverables financed under the project. PIU will procure TA and provide administrative support to MOE in managing consultant contracts. Long-term consultant staff will have technical, training, and coordination responsibilities. MOE will consider performance-based contracts for all non-permanent staff and consultants hired under the project. ***As a special condition prior to first disbursement, GOG will present the Bank with evidence that it has selected and initiated Central Tender Board approval of six international contracts for the following long-term staff: (i) monitoring and evaluation specialist, (ii) assessment specialist, (iii) literacy specialist, (iv) teacher training specialist, (v) education legislation specialist (short-term), (vi) an international firm to implement the innovative technologies sub-component.***
- 3.12 A ***grant facility*** to schools for qualitative school improvement plans under the "Compact for Literacy" (§2.9), will transfer a total of US\$400,000 in financial resources over the life of Phase I, to needy schools in accordance with an equity-driven funding formula to be agreed with the Bank and outlined in the implementation manual. The formula will determine the use, eligibility, procedures, amounts, and reporting requirements for the schools. Funds will be disbursed from the regions to the schools following a mechanism already established in PEIP. Schools must have active participation of SIACs or PTAs. An agreement establishing the purpose, amount, disbursement terms and conditions will be signed with each school. PIU will administer and record loan funds used for the grants.

- 3.13 **EMIS.** Articulation of MOE's system, beginning with the development of the ministry's backbone network, will be phased over Phase I. International and local specialists and respective hardware and software will be procured using competitive bidding.
- 3.14 **Civil works.** Schools constructed or improved through BEAMS will be selected using technical criteria that are poverty-targeted, needs based, and compliant with socio-economic, demand, and cost-efficiency measures agreed with the Bank and presented in the component master plan, including: (i) the alleviation of space shortages as defined by a minimum percentage of overcrowding above the regional mean; (ii) the location of schools in economically depressed areas; and (iii) the demonstration of unmet need through catchment analysis, including access and enrollment criteria. Procurement administration and the supervision of contractors, consultants and goods will be carried out by PIU. All construction will follow norms established by MOE and EPA, as well as technical and environmental guidelines specified in the infrastructure component master plan. *As a special condition prior to first disbursement, MOE will provide the Bank with a list of titles and titleholders for the proposed construction sites in Batch 1, certified by the Attorney General's Office. Further, prior to the disbursement of loan resources under the civil works component, MOE shall present for Bank no-objection, architectural designs, engineering specifications, tender documents, and appropriate evidence of Government ownership and title of land for each school to be constructed, improved, or extended with project resources.*
- 3.15 Civil works will be implemented in two batches. Batch 1 is based on a prioritized ranking of regional proposals that meet the agreed selection criteria. Following implementation of the 2002 national census, a school mapping exercise will confirm the inclusion of schools for Batch 2. *As a special condition prior to the approval of loan resources for Batch 2, GOG will provide the Bank with evidence that all schools constructed or improved under BEAMS meet current norms with regard to national averages for: (i) GSS teacher: student ratio, and (ii) GSS trained teacher: student ratio*, as published in the most current Educational Digest. This benchmark will be reviewed on an annual basis. Table III-1 illustrates priority civil works for Batch 1.

Table III-1 BEAMS: Indicative Phase I Civil Works (Batch 1)			
Category	School	Building	Places
New	Mahaica	Secondary	600 students
New	Aurora	Secondary	600 students, 120 dormitory, 4 teacher housing
New	Bartica	Secondary	1050 students, 120 dormitory 4 teacher housing
Rehabilitation	Bladen Hall	Secondary	1050 students
Rehabilitation	North Ruimveldt	Secondary	1050 students
Extension	Charleston Secondary	Secondary	300 students
Rehab	Lodge CHS	Secondary	450 students
Rehab	Tutorial	Secondary	450 students

D. Building and equipment maintenance

- 3.16 MOE and the Bank agree on the level of GOG recurrent resources necessary to maintain the existing stock of primary and secondary schools at current levels. GOG has committed to address the financing gap in school maintenance (¶ 1.36) through a progressive annual increase of US\$270,000 per year over the FY 2000 baseline of US\$2.8 million, until reaching an annual allocation of US\$3.9 million in year 4; and then to sustain that amount, as a minimum, through Phase II. Annual benchmarks to track the gradual increase in GOG's budgetary allocation follow: 2002/03: US\$3.10 million, 2003/04: US\$3.37 million; 2004/05: US\$3.64 million; 2005/06: US\$3.90 million. *As a special condition prior to disbursement of loan resources under the civil works component, GOG will present evidence of achieving the agreed annual benchmarks for school maintenance and repair, in the GOG recurrent budget.* This benchmark will be reviewed on an annual basis during the joint IDB/GOG administrative review.
- 3.17 MOE will operate and maintain schools and equipment financed with program resources in accordance with accepted technical standards and make necessary resources available for their efficient operation and maintenance. Maintenance plans will be prepared for each school financed under the program. During year 1, GOG will initiate the transfer of discretionary resources for maintenance to schools that have active SIACs. In the case of information technology equipment (computers, software, multimedia equipment), the purchase price will include three years of preventive maintenance and repairs to ensure optimal performance. Maintenance and replenishment costs for all components were included in the sustainability analysis. Maintenance reports on all works and equipment acquired under the program will be prepared and submitted to the Bank on an annual basis during the execution period, and for five years after the end of the program.

E. Project financial management

- 3.18 All capital and operational funds required for BEAMS will be identified in GOG's Public Sector Investment Programme and Estimates of Expenditure. Sufficient loan resources and counterpart capital funds will be transferred on a timely basis to the MOE/PIU as required for program execution. Bank resources and counterpart funds will be deposited into separate special accounts opened for BEAMS at the Central Bank of Guyana. PIU will: (i) establish and maintain adequate financial, accounting, and internal control systems; (ii) organize an accounting system that allows the identification of the sources and uses of project funds; (iii) maintain documentation to verify transactions, disbursements, and contracts; (iv) submit to the Bank semi-annual reports on the status of the revolving fund; (v) prepare annual *audited financial statements* on project expenses according to Bank policy. These statements should be submitted within 120 days of the close of each fiscal year, and should be audited by the Office of the Auditor General. MOE and PIU will migrate to the new integrated financial management system when it comes on stream during Phase I of BEAMS.

F. Procurement

- 3.19 The *procurement* of all civil works, goods, and related services will follow the Bank's procurement rules as stated in Annex B of the loan contract. The

thresholds above which procurement will be subject to international competitive bidding are US\$350,000 for goods and related services, and US\$2,000,000 for civil works. Acquisition of consulting services will be subject to the procedures set forth in Annex C of the loan contract. International competitive bidding will be mandatory for contracts exceeding US\$200,000. The detailed procurement plan for the loan operation is included in Annex III.2.

- 3.20 Three **waivers** to Bank procurement policy are approved in the BEAMS program: (i) use of the trade name “Microsoft” for the purchase of productivity software in competitive bidding through commercial providers. Microsoft is the standard operating system and software currently used within MOE and by all GOG offices. Use of the Microsoft family of productivity and OS software is critical for compatibility and administrative purposes; (ii) sole source purchase of specialized courseware entitled “Success Maker”, from Computer Curriculum Corporation, is justified in order to standardize and maintain compatibility with courseware currently in use by MOE and financed under PEIP. Bank rules for the procurement of specialized didactic materials, textbooks, software, and publications in education, science, and technology will apply; (iii) MOE will permit the sole source procurement of the firm that designed the IRI Mathematics component to execute related component activities, given the paucity of firms with resident capacity in interactive radio instruction for mathematics. The Bank’s procurement office has confirmed that the sole source procurement of the design firm would be preferable given its technical and institutional advantages over the only other firm in this field. The above-mentioned waivers will follow procedures outlined in chapter GS-403 of the Bank’s procurement manual.

G. Disbursement schedule

- 3.21 Loan proceeds are expected to be disbursed according to the following schedule:

TABLE III-1: CALENDAR OF DISBURSEMENTS (US\$ 000,000)			
	TOTAL	IDB	LOCAL
Year 1	8.8	8.4	0.4
Year 2	9.9	8.9	1.0
Year 3	10.3	9.2	1.1
Year 4	4.5	3.5	1.0
TOTAL	33.5	30.0	3.5

H. Advance of funds, recognition of local counterpart and retroactive financing

- 3.22 The Bank will disburse 5% of the financing to establish a revolving fund to pay for projected expenditures. Replenishment and reporting on the revolving fund will follow Bank procedures. The Bank will reimburse up to US\$1.0 million of loan financing retroactively for eligible expenses incurred up to one year prior to loan approval. Up to US\$1.0 million may be recognized as counterpart contribution for eligible expenses incurred up to 18 months prior to loan approval.

I. Project monitoring and evaluation

- 3.23 Monitoring and reporting will be the responsibility of PIU. Specific tasks include: (i) preparing semi-annual progress reports documenting project implementation, outcomes, and outputs; (ii) preparing and administering the program budget; (iii) updating implementation schedules and expenditure plans; (iv) documenting the bidding and contract administration processes; (v) monitoring indicators and compliance with technical and contractual standards established in loan documentation, including performance targets; (vi) monitoring training programs; (vii) monitoring GOG budgetary allocations for capital and recurrent costs, and for schools maintenance; (viii) monitoring institutional reforms and policy agreements. PIU responsibilities for project financial management are detailed in ¶ 3.18.
- 3.24 A robust **PMIS** will enable MOE/PIU to track all project tasks and deliverables, and to integrate them into a master reporting mechanism, with linkages to budgets and the logical framework. The resulting monitoring and evaluation system will generate data on sector performance and track loan execution, including beneficiary participation by ethnic, gender, age, geographic, and socio-economic groups. Monitoring systems for all program components will be made operational in project year 1. By the end of Phase 1, the EMIS/PMIS will become a permanent, ministry-wide system for project monitoring and coordination and will encompass all sector-related initiatives. Migration to an integrated EMIS/PMIS will also facilitate the eventual consolidation of all PIUs working in the education sector into an integrated education services group under MOE, resulting in cost-savings, cross-fertilization, and the more effective use of existing personnel under a unified compensation and incentive structure.
- 3.25 During the preparation of BEAMS, **baseline data** focusing on outcomes identified in the evaluation framework, including key indicators relating to teachers, sector administration, financial and management practices; MOE staffing; information management; school maintenance; student performance (at the end of primary and secondary schools) and participation by level, region, and gender was gathered from a variety of sources. Migration of the baseline data into the PMIS will run in tandem with the development of the system during year 1, and serve as a trial exercise for collecting and managing performance data for EMIS. Additional data on school performance, participation, and efficiency will be collected and updated in tandem with the operation of the student assessment sub-component, through a national school mapping exercise to be undertaken by MOE in year 1, and through the roll-out of the EMIS system to the regions and the schools, using indicators agreed with the Bank. This data set will serve as the baseline for the annual reviews, the external evaluation of Phase I, and for the ex-post impact evaluation to be carried out after Phase II. Overall monitoring and evaluation of education sector performance will reside in MOE's Planning Unit.
- 3.26 A **project launch workshop** will be held within three months of disbursement eligibility. The workshop will familiarize all parties engaged in BEAMS execution with their responsibilities, the program's strategies, the implementation plan, execution procedures, and the evaluation framework.

- 3.27 ***As a special contractual condition, the Bank and GOG will conduct two joint monitoring and evaluation reviews per year during the first two years of project implementation, and one review per year in subsequent years.*** Scheduling of the reviews will occur within 2 months of the receipt of the semi-annual report (January and July). The reviews will gauge progress toward achieving project implementation targets. ***The reviews will facilitate adjustments to the action plan, budget, and disbursement schedule for the following year that ensure the successful implementation of triggers and benchmarks expressed in Annexes II-1 and II-2.***
- 3.28 A provisional list of issues to be reviewed during the joint monitoring and evaluation reviews includes: (i) implementation progress made during the preceding year, activities performed, investments made, performance outcomes, triggers and benchmarks achieved by each component; (ii) current and projected budget disbursements for capital and recurrent costs; (iii) confirmed progress towards the achievement of policy actions agreed with regard to equity targets, teacher remuneration and incentives, the *Education Act*, devolution of responsibility to regional authorities; budgetary allocations for schools maintenance, staffing of secondary schools constructed under BEAMS per agreed norms; (iv) implementation mechanisms, EMIS/PMIS effectiveness, and coordination with other participating agencies and stakeholders; (v) consultant activities, recommendations, and action taken by MOE; (vi) evidence of inclusion of adequate capital and recurrent financial resources in the GOG's following year budget for BEAMS implementation, and evidence of how HIPC and other resources available to the GOG will support the recurrent and sustainability costs generated by the program.
- 3.29 Loan resources will finance an external ***Phase I performance evaluation*** to assess progress towards achieving implementation outcomes, output indicators, and performance benchmarks defined in Annex II-2. The evaluation will provide an opportunity to introduce modifications based on lessons learned, and take into account changes in the economic and political context. Based on the evaluation, the Bank will determine whether the project is ready to proceed to Phase II of loan financing. The year 3 monitoring and evaluation review will serve as the ***mid-term evaluation***, and as the starting point for addressing the readiness of BEAMS to initiate Phase II planning, including the Phase I performance evaluation. The results of the evaluation, and requirements for moving to Phase II approval, will be examined by GOG and the Bank during the year 3 monitoring and evaluation review.
- 3.30 An ***ex-post evaluation*** will be conducted six months after Phase II completion. Data needed to carry out the ex post evaluation will reside in the EMIS (§3.24), Phase I evaluation, and PIU reports. Phase II loan resources will finance the ex-post evaluation.
- 3.31 IDB Country office ***inspection and supervision*** will continuously support BEAMS implementation. Program supervision will require an estimated 20 staff weeks per year provided by the COF, and eight weeks of headquarters supervision.

IV. VIABILITY AND RISKS

A. Viability

- 4.1 **Institutional and technical viability.** The preparation of BEAMS has profited from lessons learned in PEIP, as well as broader Bank experience in the region. Given that the implementation of a new project generally requires some initial accommodation period, MOE has identified mechanisms to facilitate a rapid project start-up and to ensure continuity in the transfer of expertise in project management. These measures include the infusion of technical support directly into MOE's work program, roll-over of core staff from the PEIP into BEAMS, expedited procurement procedures, and implementation of a project management methodology. BEAMS will further strengthen MOE capacity to deliver quality education with clear lines of authority and accountability at the school level, within regional bodies, and in central administration. In support of this objective: (i) the *Education Act* and Regulations are presently being revised to define the authority of the various agencies and positions within the educational system; (ii) a third five-year ESDP (White Paper) has been drafted by MOE to guide future investments in the sector; (iii) a rigorous organizational capacity assessment of MOE conducted in 1999 has led to external and internal changes to strengthen MOE execution capacity; (iv) an integrated financial management system is under development. Institutional viability is further assured with loan support for the preparation of EMIS policies and procedures, and the establishment of a comprehensive PMIS to provide BEAMS with an effective tool to closely track project activities.
- 4.2 **Financial viability** of the program has been analyzed in terms of the availability of counterpart resources for the Bank loan, as well as the capacity of Government to sustain incremental recurring costs associated with the new investment. The Government has proposed to meet these demands through the dedication of HIPC resources earmarked for the education sector, and has already opened a budget line for BEAMS execution in the 2002 budget. The additionality of recurrent costs generated by BEAMS will average around 2% of the education sector recurrent budget. This position is considered to be sustainable within the context of the long-term (E-HIPC) macro-economic projections for sector financing through 2010, provided that current public sector wage negotiations do not result in escalating costs beyond general adjustment factors.
- 4.3 **Environmental impact.** BEAMS will finance small-scale projects, including new school construction and the rehabilitation of existing infrastructure. Potential hazards are considered minor and predictable. To mitigate this occasion, a limited environmental analysis was conducted during project preparation and detailed environmental guidelines were prepared to inform execution of the civil works component. In accordance with the norms and procedures, construction permits will be granted on the basis of environmental management plans. Mandatory application of standard measures in project engineering will be specified in the bidding documents. The project also includes a methodology to integrate community participation in the adaptation of standard designs for school construction to local, cultural, and geographic contexts; and to ensure that areas

with high environmental sensitivity or incompatible land uses are excluded. All civil works will be inspected by a certified engineer prior to acceptance by education authorities. No negative environment impacts are expected.

- 4.4 The ***social impact*** of the program will be significant, as BEAMS will promote the inclusion of groups across community, ethnic, racial, and socio-economic lines. As part of its effort to identify and address social, ethnic, and gender issues, MOE will implement a sustain social mobilization campaign to ensure the full and active participation of all stakeholders in school improvement initiatives. Care will be taken to respect the norms of indigenous populations in the development of all content and in the extension of services. The transitional plan for universal secondary education, based on the school mapping exercise, will take into account poverty indicators as well as ethnic and gender disparities. Progress towards the achievement of equity objectives expressed in the evaluation framework will be closely monitored through the PMIS.
- 4.5 This operation qualifies as a social equity-enhancing project, as described in the indicative targets mandated by the Bank's Eighth Replenishment (Document AB-1704); and as a Poverty Targeted Investment since virtually all the interventions will benefit all segments of the basic school-age population especially children from low-income families who are at the margin of both access and achievement.

B. Benefits.

- 4.6 The operation builds upon extensive national consultation undertaken by MOE as part of the development of its EDSP. BEAMS emphasis on social equity will benefit all segments of the school-age population, notably children from low-income families who are at the margin of both access and achievement. At the primary level, teachers and students will benefit from the curricular and pedagogical reforms in literacy and numeracy. At the secondary level, the project will support the targeted expansion of coverage to low-income groups with the greatest levels of unmet demand. Specific programs will target low-performing students from poverty zones and make provisions for the retention of trained teachers in underserved areas where the need for equity targeting and intervention is most acute. BEAMS will use innovative learning technologies to extend quality education to children in remote areas. The performance of at-risk children will be further supported by a targeted package of instructional resources, technological innovations, and accelerated learning programs

C. Risks

- 4.7 Critical to strengthening the education sector is GOG's ability to ***attract and retain qualified teachers***. GOG has informed the Bank that it will address teacher remuneration within the context of a sustainable government-wide public-sector modernization strategy currently being designed with Bank support (ATN/SF-6867-GY). BEAMS will inform this process through the ongoing monitoring of teacher supply/demand, the identification and analysis of viable compensation strategies, and the introduction of a sustainable program of pecuniary incentives to attract and retain qualified teachers, including: (year 1) opportunities for unqualified teachers to participate in programs that upgrade their

educational status, teaching qualifications, and compensation; (years 2-3) provision of residential accommodations to attract and retain qualified teachers in rural schools; establishment of a permanent system of teacher training and support at the cluster level; workplace improvements, including appropriate learning technologies and teaching resources in all primary schools; incentive grants for school improvement projects; and (year 4) actions to improve the compensation of trained teachers and their retention in remote schools vis a vis the government-wide public sector modernization program. Through the collaborative bargaining process, MOE will commit to working with the union to introduce wage incentives within the existing structure of teacher remuneration that favor trained and qualified teachers. ***The Bank fully supports the government's initiative to strengthen the education sector, and has identified government's effort in putting in place sustainable programs to attract and retain teachers as benchmark conditionality for proceeding to Phase II of the loan program.***

- 4.8 MOE ***execution capacity*** is limited by its complex organizational structure, a shortfall of qualified staff at the managerial level, and administrative responsibilities that overburden senior administrators. Additional competing demands placed on these administrators could lead to slippage in loan execution. To mitigate this risk, MOE assigned experienced staff from the existing PEIP PIU to facilitate BEAMS start-up and implementation. Five long-term international staff will also be assigned to MOE technical units responsible for implementing BEAMS, thus developing new technical expertise while preserving existing capacity developed in project administration. BEAMS will also establish a continuous system of succession planning, leadership development, and training for senior and middle managers in education management and supervision. Finally, a robust PMIS capable of generating data on performance outcomes, program outputs, and operational audits, which will enable MOE to identify potential bottlenecks and take appropriate action. Development of a strong PMIS and its integration with EMIS will facilitate an efficient monitoring of BEAMS performance and the eventual consolidation of all PIUs working in the education sector, into an integrated education services group within MOE, resulting in cost-savings, cross-fertilization, and a more effective use of existing personnel.
- 4.9 Whereas RDCs manage 75% of the education-sector recurrent budget, their role in the administration of the day-to-day operations of schools is not clearly defined within the current legislative framework. BEAMS will assist GOG to assess and clarify the roles of MOE, TSC, and RDCs, in a way that strengthens MOE's facility to provide strategic and technical direction to the entire sector, while increasing transparency in resource management at the regional level, and enshrining responsibilities for all key players in a legislative framework. Inherent in any process to redefine roles and accountability, there is a ***political risk*** that the parties will not agree on the way forward. To mitigate this risk, GOG has agreed to form a high-level Task Force, composed of a broad cross-section of civil society, to review the organizational structure of the sector, and make consensus recommendations for drafting a new *Education Act*. The Task Force will work closely with the Office of the President and the Ministry of Local Government to ensure that the new legislation and its regulations meet the long-term goals of Guyana's National Development Strategy, and are acceptable to all stakeholders.

BEAMS: PHASE I TRIGGERS AND BENCHMARKS

Phase I of BEAMS will strengthen the quality of basic education, improve governance of the sector, and increase access to secondary places in Guyana. Starting with the first annual Monitoring and Evaluation Review, the Bank will follow up on the benchmarks and performance indicators identified in the Logframe (Annex II-2) that will have to be achieved at the end of phase I. The following table is a list of triggers and benchmarks designed to gauge progress toward meeting Annex II-2 targets, which will enable the Bank and GOG to determine that substantial progress has been accomplished so as to initiate the external Phase I evaluation and preparation of Phase II. Loan financing for Phase II will be contingent upon the results of this evaluation confirming simultaneous progress in all project components. The evaluation will also provide an opportunity to introduce modifications to Phase II based upon lessons learned during Phase I execution, taking into consideration changes in the economic and/or political context.

Triggers and Benchmark Indicators
<p><i>Component 1: Improved School Performance</i></p> <ol style="list-style-type: none"> 1. The new literacy, numeracy, assessment, and teacher training models are in place; 100% of all primary schools have received teaching and learning resources. 2. All primary schools benefit from teacher training, at least 50% of all trained teachers use literacy and numeracy methods and materials on a regular basis. 3. National assessment policy in place; standardized tests validated for Grade 2. 4. Package of technological interventions and accelerated learning programs operational in 100 low-performing schools. 5. Enhanced community and parental involvement as demonstrated by the number of functioning SIACs and PTAs, and school improvement plans funded.
<p><i>Component 2: Enhanced Organizational and Human Resource Capacity</i></p> <ol style="list-style-type: none"> 6. Modern Education Act drafted and vetted by national consultation; regional education committees operational. MOE will make every effort to have hiring authority for temporary teachers devolved to the regions. 7. EMIS developed and operational in central MOE, roll out begun to regions and schools. 8. Program of professional development for middle and senior education managers operational. 9. Teacher incentives introduced, including: at least 20% of all unqualified primary teachers actively enrolled in upgrading program leading to permanent employment, and workplace improvements. 10. Mechanisms providing educational and physical maintenance resources directly to schools in place. 11. The proportion of qualified teachers in the total teaching force in primary schools, and of all teachers posted in rural primary schools, increased.
<p><i>Component 3: Civil Works</i></p> <ol style="list-style-type: none"> 12. Delivery of the first lot of new and refurbished secondary schools and expanded secondary departments of All Age schools in underserved areas. 13. Transition plan for universal secondary expansion implemented, based on resource rationalization and national school mapping exercises. 14. Progressive annual increase in recurrent budgetary allocation for schools maintenance, according to agreed benchmarks. 15. Staffing of all secondary schools constructed or improved through BEAMS per agreed national norms for GSS trained teacher:student ratio.
<p><i>Loan Disbursements</i></p> <ol style="list-style-type: none"> 16. At least 70% of loan funds corresponding to component 1 (School Performance), component 2 (Organizational and Human Resource Capacity), and component 3 (Infrastructure) are committed. 17. At least 50% of loan resources corresponding to components 1 and 2 have been disbursed.

PHASE I: SUMMARY LOGICAL FRAMEWORK

Narrative	Indicators	Means of Verification	Assumptions
GOAL			
Sustainable socio-economic development and equitable poverty reduction in Guyana.	By the end of the program, a 5 percent increase in National figures on education using United Nations standards; including an initial 1 percent increase by the end of Phase I.	United Nations' index of standards of living.	GDP growth sustained and PRS is implemented.
PURPOSE			
Sustained, improved quality and literacy and numeracy attainment in the basic education cycle.	<p>Student achievement in numeracy increased by 50% in rural schools and by 30% in urban schools, over grade 2 baseline, using age appropriate standard tests.</p> <p>25% increase over baseline, in age cohort achieving literacy standards at grade 2 level, using age appropriate standardized tests.</p> <p>A financial, management, human resource and training system for the enhanced delivery of literacy and numeracy is in place and operational.</p>	<p>Reports from MOE.</p> <p><i>Statistical Digest.</i></p>	Adequate capital and recurrent resources are allocated in accord with program budget.
PHASE I			
COMPONENT 1: SCHOOL PERFORMANCE			
<p>BEAMS literacy program implemented in Nursery -Grade 2 classrooms.</p> <p>Interactive radio mathematics instruction (IRI) adopted as core maths instruction in Grades 1-3.</p> <p>Communities and schools work together to define and implement school improvement programs.</p> <p>Primary teacher competencies in Literacy and Numeracy are increased.</p> <p>Permanent training system in effect to guide and support changes in teaching paradigms.</p> <p>Continuous assessment tools and related guidelines for Nursery- Grade 4 classrooms, used.</p> <p>National assessment policy, including the gradual phasing out of SSEE and the introduction of continuous assessment and standardized testing, developed and implemented.</p> <p>Low-cost instructional systems and/or computers to reinforce learning in schools, introduced.</p>	<p>75% of participating Nursery - Grade 2 classroom teachers in the program apply BEAMS literacy methodology.</p> <p>75% of all Grade 1-3 classrooms utilize IRI-Mathematics as their main teaching method for maths.</p> <p>40% of all primary schools demonstrate community involvement in school improvement initiatives through school councils, PTAs, SIACs.</p> <p>60% of schools served through the cluster training network.</p> <p>60% of all school clusters are functional.</p> <p>60% of the primary teachers in grades 1-2 apply continuous assessment standards in Literacy and Numeracy.</p> <p>Standards-based performance assessment tools developed and administered in grades 2, 4 and 6.</p> <p>Supplementary educational resources introduced and used in 100 under-performing schools as support for learning.</p> <p>Statistically significant yearly test gains, compared to prior performance, among children participating in the program from the under-performing schools.</p> <p>80% of first cohort of school clusters uses technology in at least 20% of their training courses and experiences.</p>	<p>Reports from international and national advisors, head teachers, cluster advisors.</p> <p><i>Statistical Digest.</i></p> <p>Reports by PIU, MOE and the schools.</p> <p>Performance tests, standardized assessments</p> <p>Teacher reports on individual students</p>	<p>Financial and human resources available, and procurement processes completed in a timely fashion.</p> <p>Five key international and four national support staff hired.</p> <p>Public and political support for changes in assessment policy are forthcoming with enough time to comply with national regulations.</p>

Cluster Advisors using regularly video, audio and computer conferencing technologies in literacy and numeracy training.			
COMPONENT 2: ORGANIZATIONAL AND HUMAN RESOURCE CAPACITY IMPROVEMENT			
<p>EMIS units adequately staffed and trained, well defined policies and procedures implemented.</p> <p>National, regional, and school information system designed and partially implemented.</p> <p>MOE human resource succession planning framework established and in operation.</p> <p>Head teachers and school leadership at primary level trained in school management and supervision.</p> <p>Graduate program (Masters) accessed by MOE Senior Managers (via distance education mode).</p> <p>TSC personnel functions in relation to temporary teachers delegated to regional level.</p> <p>Sustainable program of enhanced remuneration and incentives established to attract and retain qualified teachers.</p> <p>MOE term limit policies for unqualified teachers enforced.</p> <p>Modern organizational structure developed and adopted by MOE.</p> <p>Revised Education Bill with clearly defined lines of authority, responsibility, and accountability at the central MOE and regional levels submitted to Parliament.</p> <p>School Improvement Advisory Councils (SIACs) established, facilitating parental and community involvement at the school level.</p> <p>Regional Education Committees reflecting geographical, cultural and community interests, established to govern educational operations in accord with the new act.</p> <p>Integrated financial MIS in place providing timely and comprehensive information from all levels of the system.</p>	<p>By Year 2, EMIS has clear policies and procedures, and is fully staffed and trained.</p> <p>EMIS implemented with databases covering human resources, students, infrastructure, maintenance, finances, program management, and sector performance, linked to a national statistics system.</p> <p>Less than 10% of senior posts in MOE and regions are vacant or with personnel acting for less than 1 year.</p> <p>315 school officials trained and applying improved school management techniques.</p> <p>At least 30 MOE officials have graduate-level credits in educational management, supervision, or planning.</p> <p>All temporary teachers appointed at the regional level</p> <p>2003: upgrading/certification program for unqualified teachers to elevate their educational status, teaching qualifications, and compensation; 2004-2005: provision of residential accommodations to attract and retain qualified teachers in rural schools; incentives to stimulate teachers' initiative at the cluster level; workplace improvements including the provision of appropriate learning technologies and teaching resources in all primary schools; incentive grants for school improvement projects; adjustments within the existing structure of teacher remuneration to favor trained and qualified teachers; 2006: actions to improve the compensation of trained teachers and their retention in remote schools vis a vis the government-wide public sector modernization program.</p> <p>Proportion of unqualified teachers continuously reduced from base line.</p> <p>New organizational chart including central and regional levels is implemented by 2003.</p> <p>Revised regulations and desk manuals produced and in operation.</p> <p>Revised Education Bill submitted to Parliament.</p> <p>60% of all schools have SIACs in operation, supporting maintenance programs and initiatives on educational quality.</p> <p>By year 3, Education Committees functioning in all regions.</p> <p>On-line automated financial information system available to MOE users, year 2.</p> <p>MOE budgetary structure and chart of accounts developed.</p>	<p>Reports from BEAMS, MOE, regions.</p> <p>MOE statistical digest.</p> <p>UG reports.</p> <p>Redo, CPCE, NCERD reports</p> <p>GOG salary scales</p> <p>Reports from TSC</p> <p><i>Official Gazette.</i></p> <p>Documents concerning the Education Bill.</p> <p>School reports.</p> <p>GEMP system implementation reports.</p> <p>MOF budget estimates.</p>	<p>MOE is capable of attracting and keeping new personnel.</p> <p>Functioning satellite network installed under ICT Project (GY – 0066).</p> <p>Adequate technical resources available to support and maintain the EMIS system fully operational at the central and regional levels.</p> <p>Close collaboration between TSC, PSC, MOE, and Teachers' Union, and Office of the President.</p> <p>Timely processing of all procurements.</p> <p>Timely appointments made by PSC and TSC.</p> <p>Cabinet approves delegation proposal.</p> <p>Parliament approves new Education Bill.</p> <p>GEMP system is fully funded and implemented.</p> <p>PSM and Office of the President prepared to commit to revised organizational structure.</p> <p>Regional Education Committees are provided for and assigned duties and responsibilities under the Education Act.</p> <p>UG Certification of upgrading courses.</p> <p>Wage negotiations will not absorb all future E-HIPC resources.</p>

Education sector budgetary formulation process revised to respond to MOE sector policies and directives.	Adoption of funding formulas for the strategic allocation of resources at the central and regional levels.		
COMPONENT 3: CIVIL WORKS			
Increased access and improved physical environment in properly functioning secondary schools in underserved regions.	Construction contracts awarded for the delivery of two lots of 11 new, rehabilitated, and expanded secondary schools, with teacher and dormitory accommodations.	Procurement documentation	Attorney General certifies legal possession of land title for all school sites to be constructed, improved, or extended with program resources.
Effective school maintenance programs in the regions.	Staffing in all schools constructed, rehabilitated or extended under BEAMS meet current norms for GSS teachers, student:teacher ratio, and student:trained teacher ratio, monitored on an annual basis.	National Budget	
	Annual GOG budgetary allocations for maintenance of all primary and secondary schools increased and sustained from a baseline of US\$2.8 million in 2000 to US\$3.9 million by 2005 according to the following schedule: 2002/03: US\$3.10 million, 2003/04: US\$3.37 million; 2004/05: US\$3.64 million; 2005/06: US\$3.90 million.	Program reports.	
	Discretionary funds for school maintenance devolved to SIACs, role of Regional Education Committees in school maintenance defined.	Reports of Regional Education Committees, REDOs, schools, and SIACs.	
MOE administrative and instructional facilities upgraded.	Facilities upgraded, occupied, and operational.	MOE Statistical Digest	
		CPCE and NCERD Reports.	
COMPONENT 4: PROJECT MANAGEMENT			
BEAMS managed appropriately in the adopted time and financial frameworks.	Outcomes of the yearly operational plan and the disbursement of project resources achieved.	Reports from PIU.	Expeditious procurement of program goods, services, consultants, and works by Central Tender Board.
MOE monitoring and evaluation system developed and implemented.	PIU maintains adequate financial, accounting, and internal control systems.	Audited financial statements regarding BEAMS expenses.	
	Monitoring reports used for management decision-making and action.	Semi-annual progress reports.	Adequate MOF Cash Releases.
	Program evaluations done in time.	Reports from the evaluators.	
	MOE documentation available on-line through the Virtual Library.	Web use.	
PHASE II: OUTCOMES			
Consolidate the process that was initiated under Phase I and continue with the delivery of educational inputs.	Generalization of literacy program in all Nursery – Grade 4 classrooms.	Progress reports.	Phase I triggers and benchmarks achieved.
	Generalization of interactive radio math in all primary classrooms through Grade 3.	Signed contracts.	
	Diffusion of best practice from Phase I Innovative Technologies trailing.	GOG Budget.	Phase II loan approved.
	Continuation of leadership training programs		
	Implementation of new governance and organizational structure, including decentralized lines of authority at regional and school levels.		
	Complete roll-out of EMIS network		
	Expansion of secondary system by xxxx places through continuation of school building, expansion, and rehabilitation.		

BASIC EDUCATION ACCESS MANAGEMENT AND SUPPORT PROGRAMME (BEAMS)

Schedule of Procurement and Bidding.

MAIN PROCUREMENT NEEDS OF THE PROJECT	Source of financing % IDB	Source of financing % LOCAL	Budget	Method	Pre- qualification Requirements	Publication SPN Semester/year
A. Procurement of goods						
Computer Equipment – hardware, software, integration) 6 lots						
1. School Performance						
Innovative Technologies						
IRI for numeracy	90	10	49,556	LCB	NO	2/2002
Literacy/Numeracy enhancement (1 bid)	90	10	366,285	ICB	YES	1/2003
Media Support (1 bid)	90	10	48,877	LCB	NO	1/2003
Student Testing (1 bid)	90	10	182,436	LCB	NO	1/2003
2. Organizational and Human Resources Development						
Educational Management Information System (EMIS)						
Regional school solutions (1 bid, 2 lots)	86	14	721,000	ICB	YES	2/2003
PMIS & PEMS soft ware (2 contracts)	86	14	28,000	PQ	NO	1/2003
3. PEU						
Computers, software and peripherals (1 bid0	100	-	26,698	LCB	NO	2/2002
Office equipment (furniture, materials, books and communication)						
1. Infrastructure						
Furniture & equipment for schools (2 bid)	90	10	1,799,250	ICB	YES	1/2004
Furniture for residence, school & teachers accommodation (2 bid)	90	10	291,112	LCB	NO	1/2004
Furniture for Admin & instructional Facilities (2 bid)	90	10	405,163	ICB	YES	1/2004
2. School Performance						
Student Testing and Assessment						
Assessment Tools	90	10	101,630	LCB	NO	1/2003
National Assessment instruments	90	10	18,800	LCB	NO	1/2004
Curriculum Development						
Parent Support materials	90	10	83,900	LCB	NO	2/2003
Innovative Technologies						
IRI for numeracy (1 bid, 1 lot)	70	30	303,300	LCB	NO	1/2003
Training and Support Literacy/Numeracy (1bid)	90	10	80,260	LCB	NO	2/2003
Supplies (1 bid)	90	10	143,370	LCB	NO	1/2003
Furnishings – School Labs (1 bid)	90	10	177,500	LCB	NO	1/2003
Literacy Instructional Packages (1 bid)	90	10	132,000	LCB	NO	1/2003
Media Support for Training (2 bids, 2 lots)	90	10	196,341	LCB	NO	1/2003
Teacher Preparation						
Materials Development	90	10	123,660	LCB	NO	2/2002
3. Organizational and Human Resources Development						
Materials - Resource Centres – (1 bid)	86	14	149, 500	LCB	NO	1/2004
Furniture – Resource Centres (1 bid)	86	14	45,836	LCB	NO	2/2002
Equipment and supplies (small contracts)	86	14	114,574	LCB	NO	2/2003
4. Program Coordination and Monitoring						
Motor-vehicles (1 bid)	100	-	180,000	PQ	NO	2/2002
Furniture and equipment (2 bids, 2 lots)	100	-	37,862	PQ	NO	2/2002
B. Civil Works (including supervision)						
Design and Supervision						
1. New Schools with residences (2 bid)	90	10	956,470	ICB	YES	1/2003
2. Replacement School with residence (2 bid)	90	10	126,328	NCB	NO	1/2003
3. Rehabilitation of Schools (2 bid)	90	10	342,720	NCB	NO	1/2003
4. Extension of Schools with residences (2 bid)	90	10	209,045	NCB	NO	1/2003
5. Administrative and Instructional facilities (1 bid)	90	10	285,998	NCB	NO	1/2003
Construction						

MAIN PROCUREMENT NEEDS OF THE PROJECT	Source of financing % IDB	Source of financing % LOCAL	Budget	Method	Pre- qualification Requirements	Publication SPN Semester/year
1. Seven new Schools (2 bids, 4 lots)	90	10	6,641,482	ICB	YES	2/2003
2. Rehabilitation of 2 schools (1 bid, 1 lot)	90	10	3,312,960	ICB	YES	1/2004
3. Extension of 5 schools (2 bids, 2 lots)	90	10	2,009,135	ICB	YES	2/2003
4. Administrative and instructional facilities (2 bids)	90	10	2,788,478	ICB	YES	2/2003
5. Upgrading of Existing schools (1 bid)	90	10	554,526	ICB	YES	2/2003
C. Consulting Services						
International Consultants						
1. School Performance						
i) Student Testing (1 long- term individual)	90	10	405,000	ICB	NO	1/2002
ii) Curriculum Development – studies (2 consultants)	90	10	160,000	ICB	NO	2/2002
iii) Literacy Reflective Practice Approach (3 Long term individuals)	90	10	537,760	ICB	NO	2/2002
iv) IRI for numeracy and Literacy (1bid)	90	10	1,137,121	ICB	YES	1/2003
v) Teacher Preparation & Training (1 long-term individual)	90	10	382,500	ICB	NO	2/2002
2. Organizational & Human Resource Development						
i) Institutional Strengthening (short term consultancies)	86	14	211,108	LCB	NO	1/2003
ii) Human Resources Development (4 consultancies)	86	14	133,180	LCB	NO	2/2002
iii) EMIS (5 short-term individuals)	86	14	212,415	LCB	NO	1/2003
3. Monitoring and Evaluation						
i) Baseline Study (1 short-term individual)	100	-	49,260	LCB	NO	2/2002
ii) Evaluations (2 short-term consultancies)	100	-	104,960	LCB	NO	2/2003
iii) MOE and project staff training (1 individual)	100	-	4,355	LCB	NO	2/2002
iv) Project Management Monitoring (1 long-term individual)	100	-	465,000	ICB	YES	2/2002
Local Consultants						
1. School Performance						
Student Assessment & Testing (2 consultants)	90	10	60,000	LCB	NO	2/2002
Curriculum Development (2 individuals)	90	10	105,000	LCB	NO	1/2003
Teacher Preparation (1 Technical Advisor)	90	10	52,500	LCB	NO	2/2002
2. Organizational and Human Resources Development						
EMIS (Network and database Analyst)	90	10	90,000	LCB	NO	2/2002
Institutional Strengthening (2 consultants)	90	10	50,740	LCB	NO	2/2002
3. Project Coordination and Monitoring						
Monitoring (3 individuals)	100	-	36,900	LCB	NO	2/2003
Social Marketing (1 individual)	100	-	4,000	LCB	NO	1/2003
PEU Technical and support Personnel	100	-	1,889,500	LCB	NO	2/2002
D. Training Requirements						
School Performance						
Short Term professional attachments (3 bids)	90	10	178,400	PQ	NO	1/ 2003
Organizational and Human Resources Development						
Short term courses and Masters Program	86	14	180,000	PQ	NO	2/2003

ICB – International Competitive Bidding; LCB – Local Competitive Bidding; PQ – Price Quotations;
DC – Direct Contracting.